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Educational News and Editorial Comment

SCHOOL LANDS AND MINERAL DEPOSITS

In several of the western states schools have been deprived of the benefits which they should have received from the federal grants of land made for the support of public education. In these states a distinction is commonly drawn between ownership of the surface of the land and ownership of mineral deposits. The courts have ruled that the federal grants to schools did not include the mineral rights. The result has been that schools have in many cases been left with worthless surface rights and have been denied the advantages which were derived from rich mineral deposits under the surface. When minerals are discovered under school lands, it has usually been the practice to take these lands away from the schools and assign in their place unoccupied lands from the public domain. School possessions have thus been gradually pushed farther and farther from civilization, and education has found itself to be the largest holder of worthless lands in these states.

At its last session Congress took steps partly to correct the situation. It provided that the Department of the Interior should put into operation a new policy, giving to the schools all the income

from lands which are known to be mineral at the time of the grant. This does not correct the harm that has been done in the past and does not provide for future discoveries.

The Department of the Interior has issued regulations based on the act of Congress. The following paragraphs are excerpts from these regulations. The quoted paragraphs are sections of the act of Congress.

"That, subject to the provisions of subsections (*a*), (*b*), and (*c*) of this section, the several grants to the states of numbered sections in place for the support or in aid of common or public schools be, and they are hereby, extended to embrace numbered school sections mineral in character, unless land has been granted to and/or selected by and certified or approved, to any such state or states as indemnity or in lieu of any land so granted by numbered sections."

The beneficiaries of this grant are the states of Arizona, California, Colorado, Idaho, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. The grant also extends to the unsurveyed school sections reserved, granted, and confirmed to the state of Florida by the act of Congress approved September 22, 1922 (42 Stat., 1017).

The additional grant thus made, subject to all the conditions in the statute making same, applies to school section lands known to be of mineral character at the effective date thereof as hereinafter defined. It does not include school section lands non-mineral in character, those not known to be mineral in character at time of grant, but afterward found to contain mineral deposits, such lands not being excepted from the grants theretofore made (*Wyoming et al.* v. *United States*, 255 U.S. 489–500, 501), nor does it include lands in numbered school sections in lieu of or as indemnity for which lands were conveyed to the states first above named, or to the state of Florida with respect to school section lands coming within the purview of the act of September 22, 1922, *supra*, prior to January 25, 1927.

"That the additional grant made by this act is upon the express condition that all sales, grants, deeds, or patents for any of the lands so granted shall be subject to and contain a reservation to the state of all the coal and other minerals in the lands so sold, granted, deeded, or patented, together with the right to prospect for, mine, and remove the same.

"The coal and other mineral deposits in such lands shall be subject to lease by the state as the state legislature may direct, the proceeds of rentals and royalties therefrom to be utilized for the support or in aid of the common or public schools: Provided, That any lands or minerals disposed of contrary to the provisions of this act shall be forfeited to the United States by appropriate proceedings instituted by the Attorney General for that purpose in the United States District Court for the district in which the property or some part thereof is located."

A SAFETY DEVICE

The *Western Construction News* describes a safety device which is being constructed in Los Angeles and is worthy of imitation in many of the larger centers of population of the country. The description is as follows:

There are now under construction by the city of Los Angeles over twenty pedestrian subways, or about one-half the number which can be financed with available funds.

More popularly known as school tunnels, these safety undercrossings for busy thoroughfares are primarily intended for the use of small children on their way to and from school and in general are adjacent to primary schools which happen to be situated on or near streets carrying heavy traffic. It is hoped that they also will be utilized by the general public, and the entrances always are arranged so as to permit such use.

In general, the building of a pedestrian subway is worth while only where vehicular traffic is so heavy and continuous or railway cars so rapid and frequent that pedestrians would prefer to descend a flight of about twenty steps, cross the roadway in a tunnel, and ascend a second flight of equal height rather than attempt to cross on the surface. Such locations are found where pedestrians in considerable numbers must cross a heavy traffic street at any point where the traffic is not required to slow up on account of a second heavy traffic street which intersects the first, that is, between blocks or at the intersection with an unimportant side street. Even in such cases where the general public is concerned, it is often problematical whether or not a subway would be used sufficiently to justify its cost, since many people will take serious risks rather than make any extra exertion or spend even a moment's additional time to secure safety. Where school children are concerned, however, the subway becomes in many cases the most logical solution of the problem, especially since the children can in large measure be required, as a matter of discipline, to use it.

INFORMATION REGARDING EUROPEAN EDUCATION TO BE ISSUED BY TEACHERS COLLEGE

The following statement is published at the request of Professor Paul Monroe, director of the International Institute of Teachers College, Columbia University.

In conjunction with the Jean Jacques Rousseau Institute of Geneva, the International Institute of Teachers College is to issue a bulletin guide for educational visitors to Europe. The guide will cover two major fields. (1) It will list the more important experimental schools in the various European countries, giving the location, the name of the principal, and the outstanding purposes of each institution. (2) It will give for each of the European countries the outstand-

ing educational authorities with specific indication of those to whom application should be made for permission to visit the schools in the governmental systems. The aim of this publication is to place in the hands of the American visitor to Europe specific guidance for visiting the outstanding or typical schools of the various countries.

Among the many American visitors in Europe each year are undoubtedly many teachers who would be glad to avail themselves of the opportunity to visit schools instead of devoting all their time and energy to churches, galleries, and the ordinary objects of tourists' interests.

While this is the first issue of this bulletin and may be only partial in the information given, it will be sufficient to guide not only the casual visitor but the serious student. The information was to be gathered through the co-operation of committees in each country and was to be carefully checked by the expert staff of the Jean Jacques Rousseau Institute.

The International Institute of Teachers College is issuing the English edition and will sell it at the cost of production. It is expected that the manuscript of the European edition will be in our hands by the middle of April and that we may have the English edition ready for distribution by the middle of May.

The pamphlet may be secured from the International Institute of Teachers College, Columbia University, at a price which cannot be determined before the date of issue.

A CONFERENCE ON SCHOOL LIBRARIES

The following letter was received by the editors of the *Elementary School Journal* from Worth McClure, assistant superintendent of schools, Seattle, Washington.

I am sure you will be interested in a matter that marks, perhaps, a very significant development in elementary education. I refer to a conference on the elementary-school library which will be held at the University of Washington this summer, immediately after the meeting of the National Education Association, under the joint auspices of the American Library Association and the Department of Elementary School Principals of the National Education Association. It is planned, I believe, that the conference will be open to all who care to enrol, without scholastic prerequisite unless university credit is desired.

The purpose of the conference is to crystallize, in a measure, the best thought of the country regarding one of the most important features of the new elementary school. It is the plan of the organizations which are fostering the project to make this the first of a series of biennial conferences which will be held immediately after the July meeting of the National Education Association. In the alternate years the high-school library will be the subject of similar conferences.

Lucile F. Fargo, general assistant of the Board of Education for Librarianship of the American Library Association, and William A. King, principal of the Bryant School, Seattle, have been selected as leaders. Miss Fargo has had

unusual success as a public-school librarian, and her experience with the American Library Association has given her a breadth of acquaintanceship that is very desirable for leadership in a conference of this kind. Mr. King is co-author with Arthur S. Gist of a new book on *The Teaching and Supervision of Reading*. He is further qualified for this service by reason of the fact that he has just completed a nation-wide study of elementary-school libraries at the request of the Reading Curriculum Committee of the Seattle public schools. He will discuss the problems of the library from the angle of the schools.

The details of the arrangement may be secured by addressing Alexander C. Roberts, dean of the Summer Quarter, University of Washington, Seattle, Washington.

The problems which arise in connection with the movement to introduce library work into the elementary schools are numerous. One of the most complicated of these problems is the adjustment of the relations between the public library and the school library. Because elementary schools have not had the funds with which to purchase books and because they have not understood the value of the reading of books other than textbooks, there has developed a tendency to control the free reading of pupils very largely through the public library. This has, in turn, resulted in some cases in a lack of co-ordination between pupils' reading and their studies.

Problems of an administrative type have also tended to keep the school and the library apart. The hours of the day devoted to school work and the hours available for library reading have been difficult to adjust. Sometimes competition of a disastrous kind has arisen.

A conference such as that which has been called at Seattle ought to go far toward promoting the use of library methods in elementary schools.

REORGANIZATION OF THE SCHOOL SYSTEM OF NEW CASTLE, PENNSYLVANIA

The undesirable practices of many school boards are the result of a lack of knowledge of the procedures which should be adopted. There is need in this country of some device by which information can be conveyed to boards of education in a way which will convince them that the information is authoritative. The Bureau of Education of the United States is performing in an increasing degree the function of expert adviser to the school systems of states and

cities. The bureau is making numerous surveys at the request of communities, and its suggestions are being accepted to the great advantage of the school systems surveyed.

Recently W. S. Deffenbaugh, chief of the City Schools Division of the Bureau of Education, was employed by the Board of Education of New Castle, Pennsylvania, to advise them regarding their organization. The advice which Mr. Deffenbaugh gave is of a type familiar to students of school administration but was evidently new to the Board of Education of New Castle. The gratifying fact is that the board adopted Mr. Deffenbaugh's suggestions.

Some paragraphs from Mr. Deffenbaugh's report which are of general interest may be quoted. Superintendents may find in these statements and in the method of conveying them to the board a suggestion as to a way of solving some of their problems. The following extracts from the report are quoted from the *United States Daily*.

The Board of School Directors of New Castle could expedite business and make its work more effective if it would follow the practice of boards of directors of various private corporations. Such boards do not administer the details of the work. The board of directors of a business or a manufacturing corporation employs a chief executive, adopts certain policies, and directs the executive to put these policies into operation. The superintendent or manager is held responsible for results. The board does not attempt to execute as a board either through committees or through individual board members. It does not pay a salary of $10,000 or more a year to an executive officer and then attempt to do the things which the executive is employed to do.

Since no individual board member of a successful manufacturing corporation would give directions to any employee, so no individual member of a board of school directors should attempt to dictate to principals, teachers, or janitors. The individual board member has no more right to do this than has any other citizen. Any authority that an individual board member may have must be expressly delegated to him by the board. There is no implied authority. The schools must be controlled by the vote of the board, and, as the superintendent is the executive officer of the board, all directions to principals, teachers, and other employees should be given by the superintendent.

The tendency throughout the country is to abolish all standing committees, since such committees often tend to perform executive functions, to foster a divided rather than a centralized or co-ordinated form of organization, and to be a means of unnecessary delay and postponement of action.

Every city school survey report in which the organization of the board is discussed recommends that there be no, or very few, standing committees.

Without doubt, the administration of the schools of New Castle would be

more efficient if all standing committees were abolished and if all matters of business were discussed by the entire board. If, however, in the opinion of the board the committee system should be continued, one or two meetings a year of each committee would be sufficient. For example, the finance committee need meet only when the annual budget is under consideration or when a bond issue is proposed, but, since every member of the board should be informed regarding the annual budget or of the necessity of a bond issue, why have the matter discussed by a special committee? Why not let the entire board act as a committee so that each member may have an opportunity to express his views and to hear the views of every other member?

As already explained, the board of school directors should legislate and employ a superintendent of schools as the chief executive officer of the board. As executive officer of the board, he should be charged with the following duties:

1. Attend all meetings of the board and all committee meetings.

2. Nominate all supervisors, principals, teachers, and other employees. He should be required to present evidence that the persons he has recommended are qualified for the positions.

3. Recommend for discharge or retirement any employee under his direction whose influence or services are so unsatisfactory as to warrant such action, subject to the approval of the board.

4. Recommend textbooks, instructional supplies, apparatus, and equipment and have general charge of their purchase, storage, and distribution.

5. Prepare, in conference with supervisors, principals, and teachers, the content of each course of study authorized by the board of education. After the board has authorized a course of study, as a course in Spanish, the preparation of it should be in the hands of the superintendent and his assistants.

6. Determine the boundaries of school attendance districts, subject to the approval of the board.

7. Direct the supervision of instruction in the elementary, junior high, and senior high schools and in all special schools, and direct the supervision of all auxiliary agencies of the schools, as extra-curriculum activities.

8. Assign, upon approval of the board, principals, teachers, janitors, nurses, and other employees of the board to the schools where their work is to be done; transfer them from one school to another when such seems to be for the best interests of the school.

9. Prepare, in conference with the secretary of the board and others in possession of the necessary facts, the annual budget, showing in detail the appropriations necessary to meet the estimated needs of the ensuing school year, and submit the same to the board of directors for consideration and action.

10. Have power, within the limits of the detailed budget, approved by the board, to approve and direct all purchases and expenditures, making a report to the board at each monthly meeting.

11. Have general charge of the operation and maintenance of the buildings and equipment of the schools and the maintenance of grounds.

12. Report to the board from time to time concerning the achievement and

progress of the school system. Prepare an annual report setting forth the condition of the schools.

13. Direct a continuous study of the need for new school sites and school buildings.

14. Recommend plans for new buildings.

15. Keep an efficiency record of all principals, teachers, and other employees.

16. Issue employment certificates and enforce the compulsory-attendance law.

17. Keep himself informed by study, visitation, and attendance upon state and national educational meetings concerning the important educational movements and report the same to the board of directors. The necessary expenses for attending state and national meetings should be paid by the board of education.

The question has been raised whether the superintendent of schools should be charged with anything more than the educational work of the school. The answer is that everything with which the board concerns itself is for the purpose of educating the children of New Castle. Educational and business administration cannot be divided among several independent executive officers. Unless the superintendent of schools has general direction of the ordering of textbooks, supplies, and the like, there may be delay and the work of the school suffers. If the superintendent is held responsible for results in the classroom, he should have authority to see that all supplies are of the proper kind and are delivered on time.

From the foregoing list of duties it is evident that the superintendent of schools will have to delegate some of them to other employees, especially business matters and the care and upkeep of buildings. As the board is now organized, there is a secretary of the board, who also acts as business agent or manager. As secretary of the board, he should perform such duties as are required by state laws and such other duties as the board of education may direct. As business manager, he should act as purchasing agent, receive, store, and distribute books, supplies, apparatus, and other materials and appliances directed by the superintendent of schools.

If a superintendent of buildings and grounds should be employed, he should be responsible to the superintendent of schools and be charged with the following general duties and such others as the board may deem advisable:

1. Be responsible for the construction and alteration of buildings in accordance with the plans and specifications approved by the board.

2. Supervise all matters of repair.

3. Recommend to the board, through the superintendent, such janitors and other employees as shall be needed for continuous employ, and have authority to employ for brief periods such workmen as are necessary.

4. Shall be responsible to the board, through the superintendent of schools, for the maintenance and operation of the heating and ventilating plants and all mechanical equipment in the various schools, and for the cleaning and heating of the various buildings.

SCHOOL COSTS

The attitude of the public toward the increasing costs of education is reflected in an editorial which was published in the *Omaha Morning World Herald* after an address had been made by a school man before the Omaha Chamber of Commerce. In quoting this editorial, it may not be amiss to point out that the reason why Omaha and some of the other cities of this country have exhausted their available funds for the conduct of schools is not that these cities are poor or that their industries are in jeopardy from taxation but that antiquated and inadequate taxing systems are the only sources of public revenue.

The editorial is as follows:

If to be forewarned is to be forearmed, then we should be profoundly grateful to a recent educational speaker before the Chamber of Commerce for putting us on guard against continued raids upon our pocketbooks in the name of educational progress.

Its public schools, the doctor says, are going to cost Omaha more and more; its people are going to have to pay and pay and pay; and they might as well make up their minds to it. Now, if he will tell us where the money is to be found, we can do that. It would be very pleasant indeed to be able to sit back and watch the education of our children without ever a thought of the expense, but, until that little detail is attended to, the taxpayers of Omaha can hardly enjoy the luxury of passive non-resistance to the demand to shell out in the name of educational progressivism.

It is all very well to take pride in the modernizing of our schools, to boast of the magnificence of their equipment, of the inexhaustible nature of their curricula, of the opportunity which we are thus purchasing for our children. But there is a limit to the extravagance which we may lavish upon even so worthy an object as the public schools. When that limit has been reached, it behooves us to come down out of the clouds and apply a little practical common sense to the administration of our public-school system.

And that limit has been reached when the school-board authorities have exhausted their resources after levying the maximum legal tax and have been compelled to finance current operating expenses on borrowed money. Omaha has been beguiled by the siren song of progressivism into committing herself to a public-school program which drains the last penny of her school-district resources. That program has brought us to a financial impasse. The present school board expects and is expected to find the way out. Until it has done that, its chief duty lies in the direction of finding means for cutting expenses rather than ways of spending more money. When the board has restored the school district to a cash basis, where it will not be necessary to borrow three-quarters

of a million for six months to pay expenses, it will be time enough to think of paying more and more and more as the years go on. In education, as in everything else, it is necessary to cut one's coat according to one's cloth.

Of course, we shall spend more money on our schools as the population and taxable wealth of the school district increases, but, if we are wise, we shall indulge in no more educational orgies of spending beyond that natural and normal increase with the resultant educational katzenjammer which we now enjoy.

In the exuberance of his prophetic vision, the doctor says, "Present-day education is expensive, and is going to be more so, just so long as you want young people to have equipment and brains to survive in this modern civilization." Perhaps we can strike a sensible average if we content ourselves with purchasing the equipment and leave it to the Almighty to furnish the brains, as he has in the past.

A SCHOOL FOR THE TRAINING OF TEACHERS

The following statement was published in the *New York Sun*.

A unique project in experimental education, involving a junior experimental school for children and a senior experimental school for student teachers, will be opened next summer at Manumit Farm, Pawling, New York, according to an announcement made by the Teachers Union. The new school, which will be known as the Manumit Summer School, will not be connected with the regular all-year sessions of the Manumit School. It will be conducted under the auspices of the Teachers Union and will be the first school in the city to be conducted by a teachers' organization.

The school will be in session for eight weeks from July 8 to August 31. The senior branch will be organized to observe the activities and the development of the children and, under expert leadership, will be conducted along the lines of the new or "creative" education.

The children's branch will consist of five groups of children from nine to fourteen years of age. There will be twelve children in a group, and each group will be directed by two teachers trained in the methods of creative education. In order to make the school really experimental in character, no children will be accepted whose parents want them to be tutored for making grades. The traditional course of study will not be followed.

The group teachers for the five classes and special teachers in the crafts, in music, in rhythmics, folk dances, and dramatics will come from several year-round experimental schools, including Manumit, thus giving the children the advantage of the methods of all the "new" schools.

The purposes of the school, as stated in the circular announcing its organization, are twofold. One is to "try to work out practical procedures under the rich and free conditions of country life that may serve as examples of what may be done for large numbers of city children when municipalities are ready to transport their public-school children for the summer season out of the hot streets and tenements to convenient country regions for education as well as for recrea-

tion." The second and the "immediately important purpose of the Teachers Union" is "to begin the training of public-school teachers in the new experimental procedures in order that ultimately the public schools may profit through learning a method that is now restricted largely to a few experimental schools."

The senior school will be limited to teachers who have a definite interest in the experimental-school movement. For the present summer the number of student teachers will probably be set at twenty-five, and personal conferences will be held with candidates for admission to the school.

HISTORY OF EDUCATION

Joseph S. Taylor, the veteran district superintendent of schools of New York City who retired a short time ago after fifty years of service, contributes a chapter to the history of education which is most illuminating in its revelation of the progress which has been made in school supervision in a half-century. His statement is as follows:

The greatest improvement of all in the last half-century has occurred in the organization, administration, and supervision of schools. When the writer began his teaching career here, Brooklyn, Queens, and Richmond were separate municipalities and conducted their educational activities in their own several ways. Brooklyn presently acquired William H. Maxwell as its superintendent, and, as a result, it promptly secured a place on the educational map of America, for Dr. Maxwell was a commanding figure in the National Education Association.

Manhattan and the Bronx were what was known as New York. Here each school building commonly had three floors and three separate schools. The first floor was given over to a mixed primary school, the second to a girls' grammar school, and the top to a boys' grammar school. Each school was in charge of a principal. About twenty was the maximum number of classes in a school.

This theoretically assured excellent supervision of teachers and individual attention to pupils. I regret to say that the advantage of the small school was theoretical only. There were some very excellent principals. Of these, I had personal acquaintance with three or four—Elijah A. Howland, Matthew J. Elgas, and Edward A. Page. But, if common report can be relied upon, there were numerous cases of outstanding inefficiency in the supervisory staff. There were principals who had the reputation of being outrageous despots, who would tolerate no initiative or originality on the part of any teacher and whose high-handed methods of administration would not be tolerated today.

I was a class teacher in New York for thirteen years. During ten of these years I received no pedagogical supervision of any kind from a principal. I found it necessary to prepare my work each night for the next day, but no one

ever asked me for any record of plan or progress. I faithfully followed the time schedule in such subjects as written composition, penmanship, and drawing. But no one ever looked at these products except myself.

As for model lessons or exposition of educational principles by the head of the school, the mere mention of such things would have occasioned a chorus of derisive laughter in many a school. I did quite a little substituting before my regular appointment in 1885, and, except in Howland's school, I received no help of any kind. Apparently the rule was to tell the substitute to "go to Room 401," which in a boys' school was equivalent to throwing him to the lions!

There may be such principals today, but, if there are, they sin against knowledge. They know that is no way to treat a substitute. They know that the proper way is for the principal or his assistant to go with the substitute to the classroom, introduce him to the children, give him grade plans, and have the children understand that, if there is any trouble, the offender will have to settle with the principal in the office.

Fifty years ago there were, of course, no eligible lists for any positions. When a principalship became vacant, the scramble began. As a rule, the candidate would be expected to teach in the ward where the school was located. There were twenty-four wards. Of these, the Twelfth, the Nineteenth, and the Twenty-second were the largest. Some were very small and therefore offered few opportunities for promotion. The principal was chosen by the ward trustees. There were thus twenty-four appointing powers. Some of the trustees could speak English and were intelligent. Others were a little handicapped in these respects. But they decided whether you were fit to be a principal or not.

If you contrast such a procedure with the method of selecting principals today, you can see what a vast revolution (or evolution) has occurred in the provision for expert and competent supervision of instruction. No one may become a principal or assistant to principal today who has not had thorough scholastic and professional training. And, having demonstrated his fitness for the place, the candidate is generally assured of appointment when his turn comes instead of being pushed aside by some incompetent rival with a pull.

Going a step higher, we find similar progress. The superintendents formerly, like the Apostles, went two by two. They did not have districts but were assigned by the superintendent to supervise particular schools designated by him. A teacher might thus have one pair of superintendents this year, another pair next year, and still another the next.

There was no possibility of continuous systematic supervision with check-up. There was no consistent policy of teaching, management, or interpretation of the curriculum. What one superintendent told you to do the next one might condemn. You could not, under such circumstances, adjust yourself with any sense of permanent security.

A PSYCHOLOGICAL ANALYSIS OF ONE PROBLEM OF CURRICULUM CONSTRUCTION

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It is obviously impossible to treat all the psychological problems involved in curriculum construction in one short article. The curriculum committee of the National Society for the Study of Education has done an important service by formulating the issues which are involved in curriculum construction. A number of these issues are psychological in nature. All these psychological issues are important, but there is one which is more fundamental than the rest and which underlies not only the construction of the curriculum but many other aspects of education. It is one of the chief issues on which the radical wing and the conservative wing in education split. It has been a bone of contention for generations and is therefore not a new issue. It extends beyond the field of formal education and appears in the entire realm of human conduct. It is the issue between the world and the individual. With reference to the curriculum, it is the issue between a socially imposed curriculum and a child-centered curriculum.

In its report in Part II of the current yearbook[1] the curriculum committee of the National Society for the Study of Education has attempted to resolve this issue by concluding that in curriculum construction we must take account of both the demands and claims of society and the interests and abilities of the individual child. The report, however, gives the appearance of a compromise. Each of the two opposing groups has accepted a statement of the point of view of the other not because the two groups are convinced of the truth of the statements but because they recognize that progress in the enterprise of curriculum construction requires a certain degree of agree-

[1] *The Foundations of Curriculum-Making*. The Twenty-Sixth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1926.

ment on the part of the various workers in the field. Some of the members of the committee have made it clear in their separate statements that they are not to be bound by the composite statement and have served notice that they regard it as only a makeshift compromise. Disagreement with the composite statement, it should be added, appears chiefly in the ranks of the radicals. The conservatives are willing to accept it as a reasonably satisfactory statement of permanent policy, although they would personally lay somewhat greater emphasis on some parts of it than on others. The radicals, however, make it clear that they regard the document only as representing a forward step and not at all the final goal.

The position which the writer will attempt to defend is that the composite statement represents a fairly well balanced emphasis on the interests of society and of the child. An attempt will be made, however, to show that it is not simply a question of balancing the interests of one against the interests of the other. A more thoroughgoing analysis will show that there is a deeper organic unity among the different elements of the problem than is brought out in this composite and, to some degree, compromise statement. The opposition appears when we set the child over against society. The possibility of organic unity will appear, the writer believes, from a psychological analysis of the development of the child himself. So long as one is internal and the other external, there is no means of unifying them. If we can find that both elements are represented in the child's nature and experience, we may be able to unite them.

Our first step in trying to solve the fundamental issue which is raised by the report of the curriculum committee of the National Society for the Study of Education is to redefine the problem in psychological terms. Instead of regarding the issue as one between society on the one hand and the child on the other, we may regard it as an issue between the promotion of adjustment on the part of the child and the promotion of wholesome internal growth or development. It is the business of any organism both to become adjusted to its particular environment and to develop into a well-integrated and smoothly functioning organism. From the psychological point of view, we may define the aim of education as the attainment by the child of harmonious relations with the world about him and of har-

monious relations between the elements of his own personality. This is a purely psychological definition which may apply to any organism or to any environment. Successful education can be defined in these terms in any age or among any people. Let us see what is involved in the principle which underlies this definition and whether it will provide a solution of the issue before us.

The principle of adaptation or adjustment is one which applies to all living organisms. Every organism adapts itself in some fashion to its environment. The higher up we go in the scale of life, the more delicate and elaborate is the mechanism for making this adaptation. The spider adapts itself to the object on which it builds its web by slight modifications in the position of the strand which holds the web. In building his home, the human being adapts himself to such a wide variety of circumstances with respect to climate, location, available building material, and architectural knowledge and traditions that the type of house which he builds depends almost entirely on the requirements of the conditions in which he finds himself. The process of adaptation controls not only the development of the individual but the evolution of the race. Whether adaptation takes place through natural selection or through some other means, it is clear that the survival of any race depends on its maintenance of successful adaptation to the requirements of its environment.

The child manifests enormous capacity for adaptation to both the physical and the social environment in which he finds himself. This capacity is matched by a disposition to make such adaptation. His restless curiosity leads him to explore both the physical and the social world. From the first year of his life until he has settled down into the adult mode of living, his greatest effort is devoted to adjusting himself to the modes of behavior which he sees in the world about him.

It is strange that we should frequently overlook the part which adaptation plays in the life of the child. As soon as his organism is sufficiently developed, he sets out to acquire the language of his older associates. This acquirement of language is an enormously complex and difficult accomplishment, but the child carries it on without any external compulsion whatever. As he grows older, he acquires the habits of eating and dressing which are characteristic of

his day and age. It is significant that even in his play the young child lives through, in his own fashion, the activities of the persons in his social group. These activities are in large part adult activities, not child activities. The small boy plays store or fireman or policeman or railroad engineer. The little girl plays house or school. Play is commonly regarded as a purely spontaneous activity originating in inner impulses. If we find adaptation to be a dominant note in play, therefore, it must constitute a fundamental principle of the child's development.

As the child grows older, he shows the disposition to acquire one after another the activities of persons about him. He begins to acquire society's number system. If he lives in a home where reading and writing are common, he makes a beginning in these activities. He often willingly takes a share in the duties of the household or of the farm because, by so doing, he enlarges the sphere of his experience and becomes a member of the social group. When the school undertakes the development of some of these forms of adaptation in a more serious and systematic way, it is not introducing a new procedure into the life of the child but is merely carrying forward the type of activity which the child has been pursuing on his own account.

It is a fact worthy of strong emphasis that the child and the adult live in the same world. There has been so much insistence on the difference between the world of the child and that of the adult that we have come to overlook their points of contact. The world into which the child is introduced in the present age is a world of cities and farms, of railroads and automobiles, of houses and stores and churches and schools, of tools and factories, of science and art and literature. In short, it is an adult world, a world which has been produced by adults and in which adults live. The child has not only his physical existence in this world but also his mental existence. It is his present world, not the world into which he will be introduced when he becomes an adult. He is concerned with his present adaptation to the world, not merely with adaptation at some remote future time.

The contrast which has often been drawn between the child's present concern and his preparation for adult life is, then, largely at

fault. It neglects the fact that the child is concerned with adjusting himself to the world about him and that this world is in large measure an adult world. The adjustment to the present is also an adjustment to the future, but it does not necessarily involve explicit contemplation of the future by the child. The child will naturally not adjust himself to all aspects of the social environment at once. He must master the simpler features before he can master the more complex ones. This necessitates progress through successive stages of adaptation leading to the final goal of complete adaptation. The succession in time from the early to the later stages is recognized by the teacher, but the child's mind is occupied chiefly with the present situation and the present attempt to deal with it. Adjustment to the present becomes preparation for the future, but the present is not a mere child's world. It is chiefly an adult world.

Correlative with the harmonious adjustment to the outside world is the achievement of internal harmony. This process, like adjustment to the environment, is also fundamental to biological development. The writer's attention was first called to its fundamental importance by Sherrington's work on *The Integrative Action of the Nervous System*.[1] In the field of mental life the principle of integration is emphasized by Holt in his book entitled, *The Freudian Wish and Its Place in Ethics*.[2] The fundamental fact represented by the principle of integration is that the organism acts as a unit. Integration is illustrated in the fact that, when an act, such as a reflex, is being performed, the stimuli which commonly lead to other acts do not produce the usual response. When the organism is engaged in one performance, it operates as a whole and is not easily diverted to a different type of performance.

In the field of mental life we see the same fact appearing. Preoccupation with one course of thought or with one kind of activity makes us indisposed for the time being to undertake another line of thought or activity. We have a disposition to harmonize and unify both our thinking and our behavior. Serious opposition between impulses produces discomfort, and, if it is fundamental and long con-

[1] Charles Scott Sherrington, *The Integrative Action of the Nervous System*. New York: Charles Scribner's Sons, 1906.

[2] Edwin Bissell Holt, *The Freudian Wish and Its Place in Ethics*. New York: Henry Holt & Co., 1915.

tinued, it is likely to produce mental disorder. Extreme disharmony or disintegration is so disturbing to the organism that it sometimes produces an actual splitting up of the personality.

The meaning and importance of integration in ordinary mental life may best be grasped by reviewing typical illustrations of integrated behavior on the one hand and of disintegrated behavior on the other hand. The simplest type of integrated behavior is reflex action, which was analyzed and described by Sherrington. In animals the next higher type of integrated action is instinctive behavior. Many psychologists in the past have believed that the conduct of man also is controlled very largely by instinct. Much educational thinking is dominated by this belief. The notion that we should base the curriculum on the spontaneous activity of the child is closely connected with the idea that much of the child's activity is instinctive and that what is instinctive is natural and beneficial. Modern psychological opinion, however, is becoming more and more critical of the theory of instincts in man. Aside from three or four very fundamental or primitive instincts, man's action is now believed by most psychologists to be determined almost from the start in large measure by his experiences and to be affected in large measure by learning.

The type of integrated action in man which corresponds to instinctive action in animals is habitual action. A habit is a well-organized or well-integrated form of behavior which has been established as the result of learning. It may go back in its origin to certain primitive impulses, but its particular character depends on the circumstances with which the individual is surrounded and on his reaction to these circumstances.

The final type of integrated behavior may be called "purposeful action." In contrast with habit, which is automatic or mechanical and which may be carried on without a clear notion of its end or aim, purposeful action is action which is directed specifically toward an objective existing in the mind of the person who is acting. The purpose which is behind a person's action may have various sources or origins. It is a mistake to suppose, as is sometimes done by certain educational theorists, that the purpose must be entirely self-originated. Purposes come from various sources; a purpose may be partly

suggested from an outside source and partly developed by the individual. What makes an action purposeful is not the origination of the purpose by the individual but the acceptance by him of the purpose. If an individual identifies himself with a purpose or an aim and acts in accordance with it, his action is purposeful action whether or not the purpose originated within his own mind or was suggested by someone else. In fact, the most vital kind of purpose is a common purpose animating a group of persons in their striving toward a common end. In such a case it is obvious that the purpose could not have originated spontaneously in the minds of all the individuals who are acting in common.

In contrast with these forms of integrated behavior are certain types of disintegrated behavior. The first is significant in its educational application. It consists in merely impulsive action. Our high regard for action which is the expression of casual and unorganized impulses is due to our sentimental regard for everything that may be called "natural." In the child's behavior we sometimes exalt this type of action to a position of chief importance. It is, in fact, about the most useless type of action except for the purpose of relaxation, and it may be actually destructive. The important fact about merely impulsive action is this: The impulses do not in themselves carry any principle of organization. The principle of organization of conduct typically arises from its reference to an objective aim which is to be accomplished in the external world. We shall refer to this point in discussing the relation between adaptation and integration of behavior.

A second type of disintegrated behavior is found in strong emotion except in the few cases where the expression of the emotion is appropriate to a primitive situation. Where some specific type of learning adaptation is required, strong emotion is always a destructive or disintegrating force.

A third type of disintegrated action is represented by cases of conflict. The conflict may be between primitive impulses, such as love and fear or fear and the discipline of habit, or between a primitive impulse and the environment, as when a strong desire is opposed to external compulsion. The last case, the conflict between desire and external compulsion, is one which has been held to have outstanding

educational significance. There can be no question that serious conflict and disintegration of behavior may result from the opposition of a strong desire to external compulsion. It is a serious mistake, however, to imply, as much of our modern educational literature seems to imply, that all external influence is of the nature of compulsion and that it results in more or less disintegration of behavior. On the contrary, direction of conduct from without may be—and under proper circumstances commonly is—a source of integration of behavior. This leads us to the next main point—the relation between adaptation and integration.

It has been common to set adaptation and integration over against each other as contrasted processes, even as mutually exclusive or contradictory processes. An attempt will be made to show that they are complementary processes and that each actually promotes the other.

It is hardly necessary to argue that integration is favorable and even necessary to adequate adjustment to the world about us. Disintegrated action absorbs in internal friction the energy which ought to be expended in productive activity. We may take this position for granted without further argument. The question then becomes, How is integrated activity to be produced? What is the relation of adaptation to integration of activity?

A good illustration of the relation between these two factors in the field of habit may be found in the simple case of learning. Learning an act of skill, such as handling a tool, is initiated by the demand for an external type of adaptation. One's first efforts will exhibit a high degree of disintegration. Many movements will be made which do not bring about the desired result. In the early stages there are many diffuse movements and a general tension of the muscles. Progress in skill in handling the tool, which is a form of adaptation, consists in progress in the integration of the various movements which compose the entire act. Thus, a new integration results from the attempt to make adaptation to a specific external situation.

The ability of the individual to adapt himself smoothly to the demands of the world of things and of persons is one of the chief evidences of mental health. Furthermore, the effort so to adapt one's

self is an important means of retaining or regaining mental health. The person whose attention is absorbed with his own feelings and impulses is on the road to disintegration, whereas the person whose attention is mainly absorbed in objective tasks which are satisfying in their nature and are within his power has fulfilled the prime condition of integration and of mental health. The feeling that a task is objectively worth doing and that one is responsible for doing it is a common cause of satisfaction. The task need not necessarily be self-imposed. It is much more commonly imposed by another or by the social group. We sometimes regard work as a necessary evil. It is very commonly, perhaps universally, a therapeutic agent. The most unhappy individual is the one on whom there is imposed no obligation, who feels no responsibility except to himself, and on whose conduct nothing depends.

If the conclusion that adaptation and integration are closely interrelated is correct, the opposition which has been set up between the two aspects of education is not necessary. Actual opposition occurs only in special types of cases. The assumption that adaptation and integration are inherently opposed has led to the position that we must either choose one or the other or adopt a compromise between them. As a matter of fact, the two are inherently related to each other in a large enough proportion of the cases to make the instances in which they are opposed the exception rather than the rule. These exceptional cases can be eliminated by skilful teaching procedure.

Adaptation and integration are thought to be opposed because we are considering mainly one type of case—the case in which the child is forced to do something which is contrary to his strong desire. When we make this type of case typical, we assume that the imposition of an obligation on the child is inevitably accompanied by rebellion or at least by resistance on his part. If this assumption were correct, all external direction of conduct would be disintegrating, and we should be forced into the dilemma which has been set forth. Fortunately, however, the assumption is gratuitous. Every skilful teacher knows how to exercise control without exciting resistance on the part of the child. A teacher who is not capable of this is not qualified

to be a teacher. On the other hand, one who assumes that no control should be exercised will produce the most extreme type of disintegration, namely, that which appears in the case of the spoiled child.

The conclusion with reference to the relation between adaptation and integration is that the essential condition which harmonizes the two principles is the acceptance by the child of suggestion or control from his environment. It is only resistance which creates opposition. Resistance is not a necessary accompaniment of control but is simply the result of control which is unskilfully brought about. There is no means of escaping disintegrating results of unskilful management whether it be carried out on the principle of freedom or on the principle of control.

The application of our conclusion to the construction of the curriculum is obvious and can be stated in a few words. The business of the school is to present the environment of persons and things to the child in such a form that he can learn to adapt himself to it. In so doing, the school must, of course, make a selection. The selection is based on the importance of the various aspects of the child's environment, on the extent to which more than casual, unorganized experience is required to enable the child to make the adaptation, and on the stages through which the child must pass in adapting himself to various aspects of the environment. In thus facilitating the child's adaptation to his environment, the school is not carrying on a procedure which is opposed to the integration of the child's personality. On the contrary, the general effect of this procedure is to promote integration. Disintegration may be produced by exercising tactless compulsion, by setting up requirements which are unsuited to the child's capacities, or by so isolating the special forms of learning which he is asked to master that they have no meaning for him. These evils can be avoided and should be avoided. They are to be avoided not by abandoning the principle of adaptation but rather by applying the principle in such a manner that it will promote integration of personality rather than disintegration.

APPRENTICING THE BEGINNING TEACHER

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In this article an effort is made to show how one city is endeavoring to meet the need of apprenticing inexperienced normal-school graduates. The plan is such that it or some modification of it might be followed by any city employing as many as six new teachers annually, provided these teachers are assigned in related departments or groups.

Miss A has creditably completed a high-school course; she has spent two years in an outstanding teacher-training institution and has been awarded the highest license the state grants to an inexperienced teacher. With such a background, she presents herself to Mr. X, a superintendent of schools in an adjacent city. In the course of the interview, the superintendent is favorably impressed with her fine personality, her sincerity of purpose, and her pleasing appearance, and in her he recognizes the earmarks of a successful teacher. When the question of experience is broached, however, he is compelled to tell her that, in accordance with the rules of the local board of education, she cannot be employed until she has had two years of experience, and he advises her to apply in the adjacent rural territory or in a neighboring city where such a requirement is not made. Miss A, however, protests against the unfairness of this. She states that but recently she heard Superintendent X make a very able address on the advantages of expert supervision such as his city has, that in her work in psychology she has had impressed upon her the significance of a right start, that in her first year of teaching she does not wish to acquire faulty habits such as are certain to be inculcated if she teaches where there is very little or no supervision, and that in all probability after two years of unsupervised experience she will be a poorer teacher than potentially she is now. Superintendent X admits that there is considerable truth in her argument but states that the rule

must prevail. He recommends that she apply at ——, where inexperienced beginners are employed on a cadet basis.

The outcome of Miss A's interview in —— is in no wise more satisfactory. There the superintendent explains to her that each year a limited number of cadets are assigned to some of the better teachers, but, since the salary is lower than that paid to the regular teacher, it becomes almost unreasonable to expect an out-of-town girl to apply for such an assignment. As a matter of fact, there is such a demand for positions on the part of the local girls that he cannot give her much assurance of an appointment. After careful consideration, Miss A decides that she can accept a lower salary since she may regard this cadet experience as part of her further education. On investigation, however, she finds that cadets are not held in high esteem; that, instead of being teachers and being given an opportunity to teach under expert supervision, they are assigned as assistants to classroom teachers, who, if they render the service which they owe to their pupils, find all their attention and energy directed to seeing that the pupils succeed; that frequently the classroom teacher to whom the cadet is assigned is by no means a master teacher; and that in many instances the cadet becomes merely the teacher's helper or clerk. Faced with such a prospect, Miss A applies in a city which does not require experience beyond the practice teaching of the normal school, and there, in this particular case, with little constructive supervision and with a constant feeling of the inadequacy of her efforts, she eventually dulls her zeal, blunts her conscience, and finally concludes that supervision is neither necessary nor worth while. Complacently she goes from year to year with both her finest touches of artistry and her gross faults unrecognized, and, as a result, the spirit that was once flaming sinks to the dead level of mediocrity.

No accurate study has been made of the annual teacher needs throughout the nation. In growing cities there are new positions created each year, and in all school units the turnover is appalling. It is estimated by Almack that there are no less than 150,000 teaching positions vacated each year.[1] Lewis cites an excessive turnover at

[1] John C. Almack and Albert R. Lang, *Problems of the Teaching Profession*, p. 216. Boston: Houghton Mifflin Co., 1925.

Flint, Michigan—63 per cent in less than fifteen months.[1] In Indiana a recent state report showed a turnover of 16 per cent.[2] In Gary, Indiana, the turnover is approximately 10 per cent exclusive of new positions. By no means are all the places made vacant by turnover filled by inexperienced teachers, but in Indiana in 1923 the normal schools furnished 1,275 graduates.[3] No figures are available, but it is a safe assumption that the great majority of these graduates were inexperienced. The data available indicate that one out of every eight teachers in Indiana is teaching for the first time.

School administrators have confidence in normal schools. They believe that persons who would be good teachers without the training given in these institutions become better teachers as a result of it. They find almost without exception, however, that the normal-school graduate without experience beyond her practice teaching falls far short of meeting the needs of the boys and girls in the ordinary classroom situation. In medicine, law, and engineering, there is an interneship, or an apprentice period, provided. It is during this period that the interne practices under the eye of a master. In this way he is given confidence in his own ability, and his shortcomings and errors are brought out to his own advantage and not at the expense of his clients. The whole teaching situation seems to demand that some such intermediate stage is necessary if even the best beginning teachers are to succeed in the best way or if teaching is to become a profession.

In his report for the academic year ending June 30, 1926, James E. Russell, dean of Teachers College, Columbia University, states the need as follows:

> But no amount of formal instruction in normal schools or teachers' colleges can offset the disadvantage under which our profession suffers by not having a period of apprentice training comparable to that which obtains in law, medicine, and engineering. As long as young teachers are left to their own devices, so long will bad habits crop up which can never be eradicated by merely being talked about. If a mistake in teaching were regarded as seriously as is an error in a legal brief or in an engineering computation, we should have teachers as careful of their prescriptions as physicians are. The fault is not with the teacher but with

[1] Ervin Eugene Lewis, *Personnel Problems of the Teaching Staff*, pp. 336–37. New York: Century Co., 1925.

[2] *Year Book State of Indiana*, 1924, pp. 693, 736. [3] *Ibid.*, p. 731.

the system under which he works. My belief is that in the pedagogical millennium every school and school system will accept one novice for every ten teachers in service. These novices will be given some teaching to do—say, half-time service for half pay—but whatever they do will be done under the eye of a master who will be responsible for the inculcation of right habits. Those who measure up to acceptable standards will be assured of permanent positions; those who fall short will be spared a life of misery in an occupation for which they are not fitted. The result in either case must be to the lasting advantage of the pupils in our schools, and indirectly to the profession as a whole.[1]

In Gary, Indiana, because of the increase in school enrolment, the teaching staff has been enlarged by about 10 per cent each year for a number of years. At the same time replacements range from 8 to 10 per cent. In all, from seventy to eighty additional teachers become members of the staff each year. As the recruiting is a recurring problem, considerable attention has been given to its solution. Questions such as the following have been discussed. Shall we employ only such persons as have had at least one or two years of experience? Is there any evidence that teachers with this amount of experience are decidedly superior? Is it not possible to get too many teachers with too much experience? Unless these experienced teachers come from exceptional school organizations, may we not have to break down many faulty habits? Is it fair to demand that other school organizations assume our responsibilities in the matter of initiating beginning teachers? Is there not an advantage in having a certain number of beginners in the organization? Might we not devise some scheme whereby we can take inexperienced normal-school graduates and give them an apprenticeship which would help them to make the necessary adaptations to the advantage of all concerned? The following represents the tentative program which has grown out of these and related considerations.

In September, 1925, a program was put into operation in the Jefferson School, in which six inexperienced teachers, each with two years of normal training, were assigned the teaching load previously carried by five experienced or regular teachers. In Gary the teaching day for each teacher is six hours. Under this apprenticeship program each beginning teacher teaches but five of the six hours, the remain-

[1] James E. Russell, "Report of the Dean of Teachers College for the Academic Year Ending June 30, 1926," *Teachers College Record*, XXVIII (December, 1926), 337.

ing hour being set aside for directed visiting, conferences, planning, preparation, and specific laboratory work. This program operated in such a way that Teacher A had the first period free, Teacher B the second, Teacher C the third, Teacher D the fourth, and Teacher E the fifth. Teacher F, who was known as a "traveling teacher," taught the first period for Teacher A, the second period for Teacher B, etc., and had the sixth period free.

This program soon proved unsatisfactory. The load of the inexperienced traveling teacher was manifestly too heavy. In September, 1926, a seventh teacher was added to the department. This teacher is an experienced and very outstanding teacher. She teaches six one-hour periods a day, relieving each of the apprentices for one hour. Since she is on this special schedule, she is paid ten dollars a month above the regular salary.

The six apprentices work under the direct supervision of a director, who gives her full time to promoting the development of the teaching powers of these apprentices. The person selected for this directorship is one who has been a successful classroom teacher and who has had experience in both administration and supervision. She must, of necessity, be a person who is tactful and outstanding. Not only must she be regarded as a real leader by the apprentices, but she must also so manage the administrative details of her department that they fall into line with those of the principal to whose building she is assigned. Obviously, too, she must keep in close touch with the entire supervisory field so that the apprentices have few, if any, adaptations to make when they are assigned to regular teaching positions. The director has a small office, in which she and her apprentices have their headquarters. This serves as a place for conferences and becomes the advisory center for the many administrative and supervisory problems which usually are handled through the principal's office. There is also in connection with this office the beginning of a professional library.

Of the six beginning academic teachers assigned to this department in September, 1925, one was a teacher who had served for one year. It was felt that she had real possibilities, but her teaching had been of such a nature that it was decided to dismiss her unless this department could bring her work to a higher level. Before the close

of the first semester the director reported that three of the six apprentices had so satisfactorily made the necessary adaptations that they were ready for regular assignments. They were given assignments, and follow-up visits were made by the director. The work of these teachers became an outstanding demonstration of the value of the program adopted.

The second semester of the school year 1925–26 found three of the six apprentices continuing; two new teachers were brought in; and one teacher with several years of experience elsewhere was assigned to the department. This last teacher had taught in Gary for one semester. She could not make the necessary adaptations, and it was thought that this department might be able to help her. At the end of the second semester the four apprentices with no experience were approved for regular assignments; the apprentice with one year's experience dropped out of the organization by request, all parties feeling that she had not taken advantage of a real opportunity to improve; the teacher with several years of experience was again given a regular assignment.

With the beginning of the second year of the experiment, the director made it part of her program not only to keep in close touch with the six new apprentices assigned to her but to follow up rather closely, so long as it was deemed advisable, the apprentices assigned to regular teaching positions. Again, some of the new apprentices made their adaptations more rapidly than did others, and the necessary adjustments were made as the situation demanded.

Any school organization can operate such a program at a financial saving, not to mention other gains, if there is a reasonable range in the salary schedule. In Gary, when the program has been in operation for a period of four years, it will mean a saving of more than $10,000 each year, other factors remaining constant. The initial salary for inexperienced teachers of elementary-grade level is $1,000. The maximum for any teacher of elementary-grade level is $2,400. The annual increment is $150. The average salary paid to the teachers entering the service in Gary for the first time during the current year, not including beginning teachers, was a little less than $1,450. If five experienced teachers had been employed instead of the six apprentices, the cost would have been approximately $7,250. The sal-

ary of the six apprentices is $6,000. The salary of the director is $2,600. The seventh teacher, an experienced one to balance the program, is paid $100 above her contract. Thus, the first year shows a loss of $1,450. If all teachers continue in service and each earns the regular annual increment, the apprenticeship department will cost during the second year as much as it did during the first year and in addition the salary of the six teachers who were last year assigned apprenticeships but who are now on the second year's salary schedule at $1,150, or a total cost of $15,600. These twelve teachers and the director are doing the work that would be done by eleven teachers, who would be receiving a total of $16,850. The third year the apprenticeship department and the teachers growing out of its activities will cost the school organization $23,400, while the teachers displaced would cost $27,350. The fourth year the apprenticeship department and its development will cost $32,100, while the teachers displaced would cost $38,750. After the fourth year the annual saving continues at above $10,000.

As stated before, each apprentice teaches five hours each day, carrying five-sixths of the regular teaching load. During this time she carries on all the activities that would be required of her if she were teaching for the first time under the regular organization. On the other hand, she is so closely in touch with her director, who spends much time observing her procedure, that she has all the advantages of teaching in a practical situation as well as the advantages supposed to accompany good practice teaching in a more or less theoretical situation.

The sixth hour of the day, which may be designated as the "training hour," has a varied program. On Friday of each week the director and the individual teacher jointly work out a program for the training hours of the next week. Usually this includes visits to certain teachers to observe how these teachers deal with certain specific situations. Part of the time is devoted to personal conferences growing out of these visits or out of the apprentice's own instructional procedure. Each week sees different problems considered, depending on the individual's needs. Some of the most outstanding problems which have engaged the apprentices' attention are classroom mechanics; the making of records and reports; discipline; the course of

study, both as a unit and in its related divisions; the selection, emphasis, and presentation of subject matter; the assignment; reference and supplementary materials; the planning of lessons; individual and small-group instruction; the significance of a professional attitude; a self-evaluation and improvement schedule—all centered about the real problem of making possible the greater and more wholesome growth of the individual child. Many of these are mooted problems for teachers of considerable experience. How much more so must they be for the conscientious beginning teacher and how welcome and opportune must be the privilege of referring them to the experienced master teacher, the director!

Group conferences are held once a month or in some instances every two weeks. In this connection a material advantage for the beginner is gained. No spirit of ennui prevails, as must on the part of the more experienced teachers at meetings which all teachers attend when points for the beginners are being discussed. Nor does the apprentice find it embarrassing to express herself and set forth her problems. Demonstration teaching, too, becomes one of the possibilities of the group meeting.

Of more than passing interest may be the following aids to better teaching enumerated by the apprentices at the close of the first year and here listed in the order of their importance: the visits to their classes by the director, the conferences following such visits, the apprentice's purposeful directed visits to other teachers for observation and new points of view, the checking of mistakes as theory is put into practice, the discussions of routine work, the attention focused on weak points, the lesson-planning, the setting up of achievement goals, the self-confidence which is established, the type lessons taught, the new feeling or attitude developed concerning personal failures, and the references read and discussed.

Fundamental to the success of the whole apprenticeship program is the selection of the right person as director or master teacher. The director must be more than a successful teacher. Not only must she be able to teach well but she must be able to recognize good teaching on the part of others. She must be an outstanding student of human nature, appreciating the problems of each individual and knowing just when, what, and how much to suggest. No small danger lies in mak-

ing the supervision too close, the apprentice too dependent, and the opportunity for individual initiative too curtailed.

The director must be a master in the matter of diplomacy and tact. Many contacts of a peculiar nature, pivotal in their significance, are tied up with definite convictions and a fine morale. Many adaptations must be made. Only a master can bring these about without loss of worth-while enthusiasm. The experienced teacher to whom the apprentice goes in her visits for observation must be thoroughly convinced not only of the professional good will of the director but also of the professional and positive nature of all conferences between the director and the apprentice relative to the visit. The position of the director in relation to the principal and the supervisory staff presents many possibilities for misunderstanding. She is the understudy and proxy of both. Her apprentices attend the meetings of both and also the meetings held independently by her. She must so conduct her department that unity and harmony prevail.

It would seem reasonable that the patron might object to having his child under the tutelage of an apprentice. No such objection has ever been reported, but there might be just cause for complaint if a child should have such teachers over a period of years. The answer is threefold: (1) a school with a large number of teachers is selected as the apprentice center, and the apprentices are so distributed in the teaching assignments that their services are not continuous; (2) not all the work of any pupil is in the hands of these apprentices; (3) even at best under the usual procedure the patron's child would have one or more inexperienced teachers in the course of his school years. What is being done here is to eliminate the instruction of this unguided teacher and to offer instruction under far more favorable circumstances.

The advantages growing out of such a program seem obvious. Much of the hit-and-miss practice in the instructional procedure of the beginning teacher is eliminated for the pupil. The beginning teacher is enabled to make the necessary adaptations earlier and in a more satisfactory way. The plan is a better means of recruiting the teaching corps. It affords a more satisfactory basis for determining the fitness of teachers and their future assignments. It has a wholesome effect on the teaching corps at large. It becomes a means of

saving (1) to the taxpayer because the program can be operated at a lower cost; (2) to the pupil because more pupils succeed as a result of the improved instruction; (3) to the supervisory and administrative forces because it materially helps them in one of their most acute problems; and (4) to the teacher herself because of the wise counsel, the attentive ear, the worthy example, and the sympathetic interest of the ever near-at-hand director.

SUMMARY

1. Throughout the United States many teaching positions are vacated each year. Supply and demand require that at least one of every ten of these vacancies be filled by inexperienced teachers. It is essential that the persons employed to fill these vacancies be well trained, be able to make the necessary adaptations both promptly and in a satisfactory way, and be good prospects for years to come.

2. One of the most common practices in filling positions in the larger cities is to require one or two years of experience elsewhere. This plan is very expensive to boys and girls in the smaller communities and does not carry with it any guaranty of the inculcation of right habits and principles in the teacher.

3. Some cities recruit their teaching corps largely by the cadet system. Unless the salary is sufficient and the cadet is assigned real teaching work under a master teacher, the inexperienced normal-school graduate does not find this system attractive or profitable.

4. Experience demonstrates that a normal-school graduate who has done only practice teaching has many adjustments and adaptations to make before she fits into a practical classroom situation.

5. In medicine, engineering, and law an intermediate stage known as an "apprenticeship" is established in order that right habits, attitudes, and skills may be developed and costly mistakes prevented.

6. In Gary, Indiana, an apprenticeship program has been in operation for two years. Six inexperienced normal-school graduates are assigned the work of five regular teachers, each teaching five-sixths of the regular day. One-sixth of the day is set aside for visiting, conferences, and observation.

7. The apprentices are directly responsible to a master teacher,

who spends her entire time in helping them make the necessary adaptations, acquire good teaching habits, and realize in the best way their greatest teaching possibilities.

8. The length of time required for this apprenticeship depends on the individual. In the first year six of the nine teachers needed one semester and two teachers a full year; one teacher needed a year to prove conclusively that she could not make the necessary adaptations so far as the local situation was concerned.

9. Such an apprenticeship program can be operated at a material financial saving, depending on the salary schedule. In Gary at the end of four years more than ten thousand dollars will be saved annually.

10. The real gain, however, grows out of helping more pupils to succeed, giving the beginning teacher a more favorable start, affording the administration an opportunity to determine earlier the fitness of teachers, and bringing to the supervisory and administrative corps relief in connection with one of their most acute problems—the beginning teacher.

11. The most important factor in the successful operation of such a program is the selection of the right person for master teacher or director.

12. Such a program of apprenticing the beginning teacher or some modification of it can readily be set up in any school system which employs each year as many as six inexperienced teachers, provided these teachers are assigned to related departments with grade levels not too widely separated.

SCHOOL PROGRESS OF CHILDREN UNABLE TO SPEAK ENGLISH ON ENTERING SCHOOL[1]

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A consideration of interest in connection with a study of the length of elementary education is the extent to which the many pupils who enter American schools from non-English-speaking homes are impeded by the language handicap in their progress through the elementary grades. Such pupils comprise an important element in our school population. In 1920, 13.2 per cent of the population of the United States was foreign born; 21.6 per cent was native born of foreign or mixed parentage. The total of these three elements in the population was 36,715,938. Of these, only 26.7 per cent was reported as having English for the mother-tongue. In 1920 approximately 27,000,000 people in the United States naturally spoke languages other than English.

New England has a larger proportion of these elements in her population than any other section of the country. A study was therefore made in Massachusetts as to the effect of the language handicap on the progress of pupils through the elementary grades. In that state 67.6 per cent of the white population is foreign born or native born of foreign or mixed parentage. In certain cities of the state these elements comprise from 80 to 85 per cent of the population.

The study was conducted through the office of the state commissioner of education, who secured the assistance of school officials in a number of representative cities and towns where the non-English-speaking population is large. Several thousand cards like that shown on page 675 were sent to the superintendents of schools in

[1] The data on which this article is based were collected for use by a commission organized by the Educational Research Committee of the Commonwealth Fund for the purpose of making an extensive study of the length of elementary education.

these communities in order to secure data concerning those pupils unable to speak English at the time they entered school.

COMMISSION ON LENGTH OF ELEMENTARY EDUCATION

(Note to principal or teacher: Please register on this card the name of a pupil in any grade above the third—preferably in Grade VI, VII, or VIII—who could not speak English when he entered the first grade. In many cases this fact can be determined only by questioning the pupil or an older member of the family.)

1. Name of pupil _____ City _____
   Last name Given name Initial
2. Nationality of parents _____
3. Grade _____
   Use figures
4. Age as of October 1, 1926 _____ Years _____ Months
   (See school register)
5. Age at entrance to first grade of public schools _____ Years _____ Months
   (See continuous pupil record or school register)
6. Underline *once* grades repeated *once*, *twice* grades repeated *twice*, etc. . . I, II, III, IV, V, VI, VII, VIII
7. Underline grades omitted . . . I, II, III, IV, V, VI, VII, VIII
8. Did pupil attend kindergarten or sub-primary class before admission to Grade I? _____ If so, for how many years? _____
9. Check approximate grade of work done by pupil: { Excellent / Good / Fair / Poor }
10. Is pupil noticeably handicapped at the present time in his use of the English language? _____

Each teacher reporting was asked to furnish data on all such pupils in her room in order that a fair sampling might be obtained. Data were received concerning a total of 1,762 pupils in Grades IV–VIII, inclusive, who could not speak English when they entered school. These pupils represented twenty-eight cities and towns[1] and seventeen nationalities.[2] The school systems in these cities and towns are organized on either the 8-4 or the 6-3-3 plan. The distribution of the pupils on the basis of their ages and grades is shown in Table I.

[1] Brockton, Chelsea, Chicopee, Clinton, Dudley, Fairhaven, Fitchburg, Gardner, Gloucester, Harwich, Hatfield, Holyoke, Lawrence, New Bedford, North Adams, Northbridge, Peabody, Plymouth, Revere, Springfield, Sunderland, Watertown, Webster, West Springfield, Whitman, Winchendon, Woburn, and Worcester.

[2] Albanian, Armenian, Austrian, Dutch, Finnish, French, German, Greek, Italian, Jewish, Lithuanian, Polish, Portuguese, Russian, Slavic, Swedish, and Syrian.

Table II shows the progress of the 1,762 pupils through school. Explanation should be made with reference to the age-grade norm used in this table. The normal age for grade used differs from that used by the United States Bureau of Education. In dealing with country-wide conditions, the bureau designates as of normal age those pupils found in the first grade at the age of six or seven. The condition of relatively early school entrance in Massachusetts seems to justify a departure from the practice of the Bureau of Education in this respect.

TABLE I

AGE-GRADE DISTRIBUTION OF THE 1,762 PUPILS IN GRADES IV–VIII, INCLUSIVE, WHO COULD NOT SPEAK ENGLISH WHEN THEY ENTERED SCHOOL

Grade	Age in Years											Total
	8	9	10	11	12	13	14	15	16	17	18	
IV	19	43	60	37	19	7	9	5	0	2	0	201
V	0	35	107	78	66	38	21	10	5	0	0	360
VI	0	3	26	106	150	118	63	38	4	0	1	509
VII	0	0	1	41	111	144	82	17	9	3	0	408
VIII	0	0	0	4	15	114	87	49	10	4	1	284
Total	19	81	194	266	361	421	262	119	28	9	2	1,762

The median minimum-age requirement for school entrance in the larger towns and cities of Massachusetts is five years and five months. A substantial number of cities and towns admit pupils to the first grade who are only five years of age. The state compulsory-school law requires all children to be in school as soon as they are seven years old if the schools are then in session. In view of the summer vacation, it is legally possible for children to enter the first grade at the age of seven years and three months. The period for entrance to the first grade in Massachusetts therefore extends from five years to seven years and three months.* In determining upon an age-grade norm appropriate to the earlier age of school entrance in Massachusetts, one seems justified in regarding those children as of normal age who are found in Grade I at five or six years of age, in Grade II at six or seven years of age, in Grade III at seven or eight years of age, in Grade IV at eight or nine years of age, etc.

Table II shows that almost two-thirds of the 1,762 pupils are

over-age. An age-grade distribution of the boys and girls separately shows a slight difference in favor of the girls, 61 per cent of the latter being over-age as compared with 67 per cent of the former. The percentages of over-age pupils in eighty cities in the United States in Grades IV–VIII are reported as follows: Grade IV, 25.5 per cent; Grade V, 29.0 per cent; Grade VI, 27.8 per cent; Grade VII, 23.8 per

TABLE II

PROGRESS OF THE 1,762 PUPILS THROUGH SCHOOL

GRADE	UNDER-AGE	AT NORMAL AGE	ONE YEAR OVER-AGE	TWO YEARS OVER-AGE	THREE OR MORE YEARS OVER-AGE	TOTAL OVER-AGE	GRAND TOTAL
	Number of Pupils						
IV.....	0	62	60	37	42	139	201
V.....	0	142	78	66	74	218	360
VI.....	3	132	150	118	106	374	509
VII.....	1	152	144	82	29	255	408
VIII....	4	129	87	49	15	151	284
Total..	8	617	519	352	266	1,137	1,762
	Percentage of Pupils						
IV.....	0.0	30.8	29.9	18.4	20.9	69.2	100.0
V.....	0.0	39.4	21.7	18.3	20.6	60.6	100.0
VI.....	0.6	25.9	29.5	23.2	20.8	73.5	100.0
VII.....	0.2	37.3	35.3	20.1	7.1	62.5	100.0
VIII....	1.4	45.4	30.6	17.3	5.3	53.2	100.0
Total..	0.4	35.0	29.5	20.0	15.1	64.6	100.0

cent; and Grade VIII, 16.7 per cent.[1] Thus, the pupils under consideration show considerably more than twice the normal amount of over-ageness.

The relatively marked over-ageness of these pupils cannot be charged wholly to the language handicap. Many of the children come from homes that afford little stimulation and encouragement. Approximately 23 per cent of the pupils entered school late, that is, after they were seven years and three months old. A few were thirteen or fourteen years old at the time of entrance. Nearly all the pupils who were more than seven years and three months old when

[1] *Statistics of City School Systems, 1917–18*, pp. 55, 57. Bureau of Education Bulletin No. 24, 1920.

they entered school were foreign born and entered school as soon as they arrived in this country. Owing to the recent legislation limiting immigration, this factor in over-ageness is no longer important. The language handicap, however, will continue to obtain for some

TABLE III

NUMBER OF PUPILS IN EACH GRADE AND OF EACH OF NINE NATIONALITIES NOTICEABLY HANDICAPPED AT THE PRESENT TIME IN THE USE OF THE ENGLISH LANGUAGE

	Jewish	Polish	Portuguese	Italian	French	Greek	Lithuanian	Russian	Finnish	Total	Per Cent
Grade IV:											
Yes.....	5	39	4	7	10	7	.....	2	.....	74	41.8
No.....	19	26	9	33	7	5	2	1	1	103	58.2
Total.....	24	65	13	40	17	12	2	3	1	177	100.0
Grade V:											
Yes.....	1	61	1	26	25	3	4	4	3	128	40.9
No.....	44	60	13	25	20	8	8	5	2	185	59.1
Total.....	45	121	14	51	45	11	12	9	5	313	100.0
Grade VI:											
Yes.....	2	51	24	39	19	2	8	2	5	152	35.6
No.....	36	51	54	52	30	10	17	8	17	275	64.4
Total.....	38	102	78	91	49	12	25	10	22	427	100.0
Grade VII:											
Yes.....	2	28	8	23	9	6	15	6	4	101	28.2
No.....	24	65	25	46	30	12	29	8	18	257	71.8
Total.....	26	93	33	69	39	18	44	14	22	358	100.0
Grade VIII:											
Yes.....	3	11	5	11	14	.....	1	.....	1	46	21.2
No.....	32	49	19	17	10	11	8	10	15	171	78.8
Total.....	35	60	24	28	24	11	9	10	16	217	100.0
Grades IV–VIII:											
Yes:											
Number....	13	190	42	106	77	18	28	14	13	501	.....
Per cent....	7.7	43.1	25.9	38.0	44.3	28.1	30.4	30.4	19.7	33.6	.....
No:											
Number....	155	251	120	173	97	46	64	32	53	991	.....
Per cent....	92.3	56.9	74.1	62.0	55.7	71.9	69.6	69.6	80.3	66.4	.....

time to come as an important cause of over-ageness. One indication of its effect is to be seen in the relatively large proportion of the pupils investigated who repeated the first and the second grades. As the pupils advance into the higher grades, it is interesting and gratifying to observe their progress in overcoming this handicap (Table III).

Table III shows that by the time the pupils have completed three grades almost 60 per cent of them are no longer handicapped to a noticeable degree in the use of English. This percentage steadily increases until at the beginning of the eighth grade almost 80 per cent of the pupils are able to use English without noticeable difficulty; in the case of the Jewish children more than 90 per cent have such ability.

TABLE IV

DISTRIBUTION OF 170 PUPILS IN THE EIGHTH GRADE ON THE BASIS OF NATIONALITY AND THE TIME REQUIRED TO COMPLETE SEVEN GRADES

Nationality	Number of Years Required To Complete Seven Grades					Number of Pupils	Total Number of Years Required	Average Number of Years Required	Average Number of Years Retarded
	6	7	8	9	10				
Polish	0	26	22*	5†	1	54	410.2	7.60	0.60
French	4	10	5	5	1	25	189.0	7.56	0.56
Italian	0	8	8	3	3	22	177.0	8.05	1.05
Finnish	2	7‡	4§	1	1‖	15	109.0	7.27	0.27
Portuguese	0	6	6	2	0	14	108.0	7.71	0.71
Ten other nationalities¶	1	15	14	9	1	40	314.0	7.85	0.85
Total	7	72	59	25	7	170	1,307.2	7.69	0.69
Per cent	4.1	42.4	34.7	14.7	4.1	.....	.....	.....	.....

* One of these pupils completed the seven grades in seven years and two months; three of the pupils completed the seven grades in seven and one-half years.

† One of these pupils completed the seven grades in eight and one-half years.

‡ Two of these pupils completed the seven grades in six and one-half years.

§ Three of these pupils completed the seven grades in seven and one-half years.

‖ This pupil completed the seven grades in nine and one-half years.

¶ Russian, Lithuanian, Greek, Armenian, Syrian, Swedish, Slavic, Albanian, Austrian, and Dutch.

Although the rate of progress of these pupils from grade to grade is of significance in this inquiry, the chief interest lies in those pupils who are this year completing the eighth grade, particularly in those eighth-grade pupils who entered school at the normal age, that is, between five and seven years of age. Reports on 170 such pupils, representing a total of fifteen different nationalities, were received. Table IV shows the distribution of these pupils on the basis of nationality and the time required to complete seven grades.

Table IV does not include data on a sufficient number of children of each nationality to warrant any generalizations as to the relative progress of the various nationalities represented. The group as a whole, however, seems to represent a reasonably fair sampling of

children who entered the first grade at the normal time and without knowledge of English. The scholarship marks of these children show that only 18 of the 170 are ranked "poor." Nearly all of them, therefore, will complete the elementary-school course at the close of the present school year.

Nearly one-half the pupils in this group are completing the elementary-school course in the usual time; an additional year is required by about one-third of the pupils; and two or more years additional, by about one-fifth of the pupils. An analysis of the group on the basis of scholarship shows that two-thirds of those who are rated "excellent" or "good" are completing the course in the normal time. One-third of those who are rated "fair" are completing the course in the normal time. The remainder are requiring from one to two years longer.

The general inference to be made from the inquiry is that non-English-speaking children who are bright are able to complete the elementary grades in the normal time of eight years. The retardation that such pupils experience in the lowest grades when they are becoming acquainted with the language need be only temporary. The policy that appears to obtain in some school systems with reference to such children, which is based on the expectation that all of them require at least one additional year to complete the elementary-school course, seems to be unjustifiable in the light of this investigation.

Statements from superintendents of schools who co-operated in the investigation indicate that there is a wide variety in the means employed by the various municipalities in Massachusetts in meeting the needs of non-English-speaking children.

In Revere the non-English-speaking pupils are placed in appropriate grades according to age and mentality, regardless of language ability. This plan is followed in the belief that pupils learn English best by hearing and using it. Some individual instruction is given in English.

In Chelsea a separate school for the older non-English-speaking children was established in 1900. The methods of instruction in this school are somewhat different from those ordinarily used. The super-

intendent states that it is remarkable how rapidly the pupils in this special school master the language.

In New Bedford "steamer classes" have been in operation since 1906. All over-age non-English-speaking children remain in these classes until they acquire sufficient English to enter a regular grade.

In Peabody first-grade pupils who do not speak English are segregated and given special instruction. A special class is maintained for the non-English-speaking pupils who are beyond the primary age.

In Chicopee a special group is formed temporarily when the number of pupils without a knowledge of English exceeds fifteen in any school district. When the number of such pupils is less than fifteen, the pupils are admitted to the grades in which their ages and previous school experience would normally place them and are withdrawn each day for work in language and reading with the lower grades.

From this brief description of the plans in use in five cities, it is clear that there is no school program for the non-English-speaking children that has been generally approved and adopted. Although good results are doubtless being secured under many of the plans reported, the situation evidently demands more careful examination and study than it has thus far received and the formulation of an educational program on the basis of such investigation.

INTELLIGENCE OF RURAL AND URBAN CHILDREN

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The report of the recent survey of education in Utah[1] contains some facts which may add fuel to the never ending discussion of the validity of the procedures used in ascertaining the intelligence of members of varying groups. The survey report is of particular interest in that it presents the scores made by urban and rural children on intelligence and achievement tests and the accomplishment ratios of these children.

TABLE I*

MEAN INTELLIGENCE QUOTIENTS OF RURAL AND URBAN CHILDREN

	Boys	Girls	Boys and Girls
Third grade:			
Rural children	92	99	94
Urban children	106	107	107
Fourth grade:			
Rural children	93	105	98
Urban children	106	113	109
Seventh grade:			
Rural children	85	91	89
Urban children	106	105	105

* Data drawn from Table 10 in *Survey of Education in Utah* (p. 158).

A comparison of the mean intelligence quotients of pupils in the third, fourth, and seventh grades in ten county districts and in one city district is shown in Table I. If these intelligence quotients were taken at their face value, it would seem that in each grade the urban children were, on the average, far more intelligent than the rural children. If the intelligence quotients were considered safe indexes of native capacity, as they are usually interpreted, it would appear that urban children are by heredity more intelligent. Before such conclusions are reached, let us consider other facts.

[1] *Survey of Education in Utah.* Bureau of Education Bulletin No. 18, 1926.

The same children were given six standardized tests,[1] designed to measure paragraph meaning, sentence meaning, word meaning, arithmetical computation, arithmetical reasoning, and dictation, respectively. The conclusions are best expressed in the following quotation.

> In comparing the scores of the third, fourth, and seventh grades for the county school districts with those for the Salt Lake City district, it will be observed that the average for the former was $4\frac{1}{3}$ school months below the norm, whereas the latter was $7\frac{2}{3}$ school months above the norm . . . . . The average difference in educational achievement between the county school districts and the Salt Lake City district, as measured by the tests, was 12.3 school months.[2]

It is to be noted that the disparity between intelligence scores is paralleled by a difference in scores on the achievement tests. The question might well be asked: To what extent are the scores on the intelligence tests influenced by knowledge of the subject content of the achievement tests? The question has been anticipated and answered by the survey staff.

> It is a well-known fact that mental age scores as measured by group intelligence tests, such as the national intelligence tests, are considerably influenced by school attainment. Data concerning the educational achievement of the pupils in Utah as measured by the Stanford achievement tests were available. Consequently, in order to learn the amount of agreement between the scores obtained by the pupils in the two tests, the Pearson correlation coefficient between them was computed. The resulting correlation coefficient for the 842 elementary-school pupils who took both tests is 0.87 with the probable error of ± 0.009. Both of these figures indicate that the two tests measured largely the same general abilities of the pupils.[3]

The high correlation between the two sets of scores raises a question as to whether the scores on the intelligence tests are indexes of native intelligence. The reader must draw his own conclusions. Facts revealed elsewhere in the survey report should receive consideration.

The mean accomplishment ratios of the same rural and urban children are shown in Table II. The accomplishment ratio is the educational quotient divided by the intelligence quotient. The edu-

[1] Divisions of the Stanford Achievement Test.

[2] *Survey of Education in Utah*, p. 152.

[3] *Ibid.*, pp. 162–63.

cational quotient is obtained by dividing the educational age, as revealed by scores on standardized tests, by the chronological age.

In every case but one, the accomplishment ratios of the rural pupils exceed the accomplishment ratios of the urban pupils. When the scores on the intelligence tests are taken into consideration, the rural children are making more satisfactory progress than are the urban children.

Progress is considered to be the criterion of intelligence. The assumption behind the intelligence tests is that the elements common in the experiences of all children do not affect the scores of any

TABLE II*

MEAN ACCOMPLISHMENT RATIOS OF RURAL AND URBAN CHILDREN

	Boys	Girls	Boys and Girls
Third grade:			
Rural children	109	105	108
Urban children	104	103	103
Fourth grade:			
Rural children	107	102	105
Urban children	104	99	102
Seventh grade:			
Rural children	108	102	102
Urban children	100	105	102

* Data drawn from Table 10 in *Survey of Education in Utah* (p. 158).

one set of children. Consequently, the ultimate scores represent the differences in learning capacity (the safest index to native intelligence). If, as the high positive correlation between the two sets of scores indicates, children in the two types of school systems do not have the same common experiences but, as the accomplishment ratios indicate, the children with the more limited experience are making more satisfactory progress, what is to be said about the intelligence of the respective groups?

Certainly, so far as the pupils are concerned, there is nothing in the report to discourage the teachers in the rural schools. The report, however, reveals inefficiency in rural-school administration, which probably explains the general exodus of trained teachers. The call seems to be for more efficient rural schools, not for more intelligent children.

SUMMARY OF ARITHMETIC INVESTIGATIONS (1926). I

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In June, 1925, a summary of 320 investigations relating to arithmetic was published by the Department of Education, the University of Chicago, as No. 27 of the Supplementary Educational Monographs. The first annual supplement to this original summary of investigations, covering the studies which appeared in 1925, was published in the May and June, 1926, numbers of the *Elementary School Journal*. The present series of articles constitutes the second annual supplement, which summarizes the investigations published during the year 1926. The bibliography is limited to published materials which are quantitative or critical in character. The writer was able to find fifty-two such studies for the year 1926 as compared with fifty-eight for the year 1925.

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A summary of material relating to difficulties encountered in reading arithmetic problems.

28. MCFARLAND, BLANCHE BULIFANT.
"Arithmetic in the Intermediate Grades, Parts IV–VIII," *Primary Education*, XXXIV (January, February, March, April, and May, 1926), 49–50, 53, 55, 122, 138, 192–93, 272, 286, 350, 352.
A series of articles analyzing the course of study in arithmetic in Grades IV, V, and VI.

29. McMURRY, FRANK M.
"The Question That Arithmetic Is Facing and Its Answer," *Teachers College Record*, XXVII (June, 1926), 873–81.
A plea for considering arithmetic as a social study rather than as merely a tool subject.

30. MESSICK, A. I.
"Effect of Certain Types of Speed Drills in Arithmetic," *Mathematics Teacher*, XIX (February, 1926), 104–9.
Compares results of drilling for speed with results of drilling for accuracy. Concludes that drilling for accuracy is more desirable.

31. MONROE, WALTER S., and CLARK, JOHN A.
The Teacher's Responsibility for Devising Learning Exercises in Arithmetic. Bureau of Educational Research Bulletin No. 31. University of Illinois Bulletin, Vol. XXIII, No. 41. Urbana, Illinois: University of Illinois, 1926. Pp. 92.
A critical discussion supported by some new data. Chief contribution consists in a detailed analysis of the problems in ten textbooks in arithmetic.

32. NEWCOMB, RALPH S.
Modern Methods of Teaching Arithmetic. Boston: Houghton Mifflin Co., 1926. Pp. xvi+354.
A general text on methods of teaching arithmetic, which is notable for its use of the findings of research studies.

33. NOLAN, OLIVE.
"Motivation of the Intermediate Course of Study in Mathematics by Shop Problems in Prevocational Schools," *Education*, XLVI (January, 1926), 285–89.
Discussion of ways of motivating upper-grade arithmetic.

34. ORLEANS, JACOB S., and SEYMOUR, F. EUGENE.
Arithmetic in the Rural and Village Schools of New York State. University of the State of New York Bulletin No. 865. Albany, New York: University of the State of New York Press, 1926. Pp. 38.
Reports a survey of arithmetic in 26 villages and 121 rural districts. In all, 75,000 children were tested.

35. PARTRIDGE, CLARA MARTIN.
"Number Needs in Children's Reading Activities," *Elementary School Journal*, XXVI (January, 1926), 357–66.
An analysis of the arithmetical terms found in books and magazines read by children.

36. RICE, C. E.
"Analysis of Errors in Arithmetic," *Educational Research Bulletin* (Ohio State University), V (February 3, 1926), 59–61.
An annotated bibliography of sixteen studies of errors made in arithmetic.

37. SANDIFORD, PETER.
"A Test in the Fundamentals of Arithmetic," *School*, XIV (February, 1926), 539–46.
Gives the arithmetic test used in the British Columbia survey. Norms given for Grades III–VIII.

38. SCARF, ROBERT C.
"The Mathematics Used in Popular Science." In *Curriculum Investigations* (pp. 119–49) by Franklin Bobbitt and Others. Supplementary Educational Monographs, No. 31. Chicago: Department of Education, University of Chicago, 1926.
An outstanding example of a careful analysis of the mathematics used in a specialized field. Based on issues of five different magazines and three books.

39. SCOTT, ZENOS E., and OTHERS.
"Arithmetic." In *The Nation at Work on the Public School Curriculum*, pp. 173–220. Fourth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1926.
A body of useful material for curriculum-revision committees. Summarizes eight different studies which appeared during 1925.

40. SEATON, E. T.
"Correlation between I.B. and Speed in Addition," *School*, XV (October, 1926), 166–67.
In a study of 362 cases the correlation between index of brightness and speed in addition was found to be .124.

41. SMITH, ELSA MAY.
"Relation between Chemistry Accomplishment and Arithmetic and Intelligence," *Educational Research Bulletin* (Los Angeles City Schools), V (March, 1926), 7–8.
Finds correlation of .35 between arithmetic and chemistry when intelligence is held constant. Too few cases included for a statement of a general relationship.

42. STONE, JOHN C.
How We Subtract. Chicago: Benj. H. Sanborn & Co., 1926. Pp. 98.
Gives a historical account of early methods of subtraction and compares various current methods.

43. STRATEMEYER, FLORENCE B., and BRUNER, HERBERT B.
"Criteria for Evaluating Arithmetic Courses," *Rating Elementary School Courses of Study*, pp. 30–36. Studies of the Bureau of Curriculum Research, Bulletin No. 1. New York: Teachers College, Columbia University, 1926.
A rating scheme for evaluating courses of study in arithmetic. Uses a five-point scale.

44. THIES, L. J.

The Time Factor in Arithmetic Texts. University of Iowa Monographs in Education, First Series, No. 2. Iowa City, Iowa: College of Education, University of Iowa, 1926. Pp. 38.

A careful analysis of the time devoted to various topics in arithmetic textbooks for the fifth and sixth grades.

45. UPTON, CLIFFORD B.

"Professionalized Subject Matter in Arithmetic for Normal Schools," *Teachers College Record*, XXVII (January, 1926), 416–28.

A discussion of methods of checking computations. A supplement to a previous article which appeared in the same journal in November, 1925.

46. UPTON, CLIFFORD B.

"Changing the Curriculum in Arithmetic," *Teachers College Record*, XXVIII (December, 1926), 341–59.

Surveys recent changes in the subject of arithmetic. Discusses the need of adapting materials to individual differences.

47. WASHBURNE, CARLETON W.

"Social Practices in Arithmetic Fundamentals," *Elementary School Journal*, XXVII (September, 1926), 60–66.

Compares results achieved in school with norms of practice outside of school Advocates raising standards in addition and subtraction and slightly reducing standards in multiplication, division, and fractions.

48. WASHBURNE, CARLETON W., and OSBORNE, RAYMOND.

"Solving Arithmetic Problems," *Elementary School Journal*, XXVII (November and December, 1926), 219–26, 296–304.

Reports the results of a committee investigation of methods of teaching problem-solving. Stresses need of much experience in solving problems.

49. WILSON, G. M.

Motivation of Arithmetic. Bureau of Education Bulletin No. 43, 1925. Washington: Government Printing Office, 1926. Pp. iv+60.

Report of a study of concrete situations to be used in motivating arithmetic.

50. WILSON, G. M.

What Arithmetic Shall We Teach? Boston: Houghton Mifflin Co., 1926. Pp. viii+150.

An elaborate example of one method of making a curriculum. An extension of the author's original *Survey of the Social and Business Usage of Arithmetic*, which appeared in 1918.

51. WILSON, G. M.

"The School Pupil Survey in Arithmetic: A 1925 Comparison," *Elementary School Journal*, XXVII (November, 1926), 187–93.

A study of the types of arithmetic actually used by adults. A chapter from *What Arithmetic Shall We Teach?*

52. WINGFIELD, ALEXANDER H.
"Construction of a T Scale for the B.C. Arithmetic Test," *School*, XIV (February, 1926), 547–51.
A description of the construction of an arithmetic scale and a critical discussion of the methods involved.

SUMMARIES OF INVESTIGATIONS

Five of the fifty-two references for 1926 contain more or less extended summaries of the literature. Three of these summaries were made for the purpose of organizing information to be used by curriculum-revision committees. The Denver course of study monograph (**12**: 15–62) devotes forty-eight pages to an application of the facts gathered from investigations to the problems of making a course of study. The materials are grouped under such topics as "Suggestions Relative to Instruction," "The Elimination of Difficulties in Reasoning," "The Individualization of Instruction through Diagnostic and Remedial Methods," and "The Relative Values of Different Types of Subject Matter." The discussions of these topics make it clear that the Denver curriculum committee proceeded with rather full understanding of the available facts relating to arithmetic. A similar treatment, although considerably more brief, is found in the California study (**1**: 92–107). A more specialized type of summary is provided by Heilman (**18**), who has reviewed a part of the literature relating to the elimination of subject matter in arithmetic. After summarizing the investigations, Heilman concludes as follows:

> The studies which have thus far been made in the attempt to find out what should and what should not be taught in elementary arithmetic have their deficits. Some of them have relied too much upon mere opinion; many have investigated specific rather than general arithmetical needs; the technic of some of them has, doubtless, been rather faulty. Even when the results of all of the studies are brought together, in so far as that is possible, it will be found that our sociology of arithmetic is rather incomplete. But in spite of these shortcomings, it appears safe to say that the results obtained have had a marked influence upon the curriculum in elementary arithmetic [**18**: 469].

Heilman's comments seem entirely warranted, particularly when the summaries are brief and incomplete. Rice (**36**) made a brief summary of sixteen studies relating to errors in arithmetic. The discussion in Rice's study is limited to the annotations made for

the separate references. The only summary for 1926 which pretended to be complete was one (6) similar to the present, in which fifty-eight quantitative or critical studies of arithmetic were listed in an annotated bibliography; the bibliography was followed by a classified discussion of the material.

DRILL

A study of the effect of emphasizing speed and accuracy in drill was made by Messick (30), who carried on a controlled experiment in the fourth and fifth grades. The practice consisted of four minutes of daily drill in column addition for a period of twenty days. One group was given the following instructions. "Add rapidly and think carefully as you work. We have found that as a rule the best adders are the ones who work most rapidly." The second group was instructed as follows: "Add slowly and think carefully as you work. Be certain that each problem that you attempt is added correctly." Both groups gained in both speed and accuracy as a result of the drill. In the fourth grade, the speed group improved 9 per cent more in speed than did the accuracy group, while in accuracy the speed group improved 44 per cent less than did the accuracy group. Messick concludes that drilling for accuracy is more important than drilling for speed, stating the case as follows:

1. From the viewpoint of *speed* it makes little difference which is emphasized, speed or accuracy.
2. From the viewpoint of *accuracy* it is much better to emphasize accuracy.
3. In teaching addition to pupils of the fourth and fifth grades of the elementary schools it is better to emphasize accuracy rather than speed [30: 109].

Burton (5) made a study of the effects of six weeks of drill for ten minutes a day in Grades III–VIII, inclusive. Definite goals of attainment were set, and in every case the pupils were made aware of these goals. The expected results followed, each grade making approximately the same amount of improvement. The experience gained in carrying on the drill experiment enabled the author to formulate certain characteristics of effective drill. These characteristics are probably of more value than the statistical results showing the amount of improvement secured. Eleven characteristics were listed as follows:

1. Drill must fit the needs of the class. These needs are to be determined by standard tests, by observing the pupils at work, and by having them do some work orally.

2. The pupil must understand what he is doing, why he is doing it, and the best method of doing it.

3. Drill should be on one element at a time.

4. Good drill keeps all of the pupils busy all of the time during the drill period.

5. Good drill presents the same element in a variety of ways; it appeals to several senses.

6. Attentive repetition is necessary; there should be a maximum of attention.

7. Drill periods should be short and at frequent intervals.

8. Care should be taken that bad habits are not being formed.

9. Good drill lines up with the instinctive tendencies of the pupil—the desire to excel former records, group rivalry, play, etc.

10. Good drill provides for individual work rather than concert work.

11. Drill is more effective under timed conditions [5: 324].

It is interesting to note that during 1926 a comparatively small percentage of the investigations in arithmetic related to problems of practice or drill. As will be noted in the second part of this article, the greater amount of attention during 1926 was given to curriculum investigations and to studies of the nature of the arithmetical processes. However, one may not interpret this to mean that there are no longer any problems relating to drill which are worthy of investigation. The gross effects of ordinary drill are now commonly recognized, but further investigations are much needed in order to determine the effects of various kinds of drill materials and the effects of various conditions under which drill is administered.

[*To be concluded*]

QUALIFICATIONS AND COMPENSATION OF PERSONS CHARGED WITH THE ENFORCEMENT OF COMPULSORY EDUCATION

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Since the administration of the compulsory-education laws is intrusted to an untrained and inefficient personnel in many cases, if not in the majority of cases, an examination of the statutes providing for the qualifications, appointment, and compensation of compulsory-education officers is enlightening.

In five states compensation for all such persons is fixed by law. In Georgia[1] they must be paid not less than one dollar nor more than three dollars a day during the time employed, and "said payment shall be paid as far as possible from fines collected." No fine exceeds twenty-five dollars, and any fine may be remitted if the child is placed in school and kept there for the required period.[2] In Kansas[3] compulsory-education officers receive "two dollars per day for each day for actual services," but no such officer may receive pay for more days in one year than the number of days school is in session during the year. Texas[4] provides that not more than two dollars shall be paid for each day of actual service. Vermont[5] has the same salary schedule and pays all expenses. Wyoming[6] allows as high as four dollars a day. With the exception of county truant officers in Kansas, who are appointed by the board of county commissioners, appointment in all these states is in the hands of educational authorities.[7]

[1] *Park's Annotated Code of Georgia*, Vol. 8, 1922 Supplement, sec. 1444*d*.

[2] *Ibid.*, sec. 1444*b*. [3] *Revised Statutes*, Annotated, 1923, art. 48:72–4804.

[4] S. M. N. Marrs, *Texas Compulsory School Attendance Law*, p. 8. Bulletin 174. Austin, Texas: State Department of Education, 1923.

[5] *General Laws*, 1917, sec. 1201.

[6] *Compiled Statutes*, Annotated, 1920, sec. 2261.

[7] *Park's Annotated Code of Georgia*, Vol. 8, 1922 Supplement, secs. 1444*c* and 1444*d*; *Revised Statutes of Kansas*, Annotated, 1923, art. 48:72–4802; *Revised Statutes of Texas*, 1925, chap. 18, art. 2895; *General Laws of Vermont*, 1917, sec. 1200; *Compiled Statutes of Wyoming*, Annotated, 1920, sec. 2261.

In twenty-six states the whole question of appointment and compensation is in the hands of educational authorities. These states are as follows: Alabama,[1] Arizona,[2] California,[3] Colorado,[4] Delaware,[5] Florida,[6] Illinois,[7] Kentucky,[8] Maine,[9] Massachusetts,[10] Minnesota,[11]

[1] *School Code*, 1922, art. 9, sec. 197; art. 15, secs. 261 and 271.

[2] *Session Laws*, 4th Legislature, Special Session, chap. 143*c*.

[3] *General Laws*, 1923, Part 2, Act 7487, sec. 4.

[4] *Mill's Annotated Statutes*, 1925, sec. 643.

[5] *School Code*, 1925, secs. 8, 11, and 41.

[6] *Session Laws*, 1923, chap. 9135 (No. 17), sec. 1.

[7] *Revised Statutes*, 1923, chap. 122, par. 398.

[8] The situation here is not exactly clear. Section 2778*c*–6, *Carroll's Kentucky Statutes*, 1922, provides that boards of education in cities of the first, second, third, and fourth classes (there are six classes) shall, the first week of July, appoint at least one attendance officer for each 15,000 children of school age. Such attendance officers must reside in the district in which appointed, must be of good moral character, and must be able to read and write with ease. Furthermore, the superintendent of schools must certify only those who are qualified. Salaries of such persons are fixed by the board, and in cities of the first class "truant officers shall be called Supervisors of Attendance." In cities of the second class the chief truant officer shall be paid not to exceed $1,200 annually. This section does not appear in the *School Code* or *School Laws* of Kentucky for 1922, published by the state superintendent. Chapter xii of *School Laws*, 1922, however, would give municipal boards of education authority to appoint attendance officers: "[these boards] shall exercise all powers of administration of the common school system [further defined to include all schools below college grade in the district] . . . . appoint such officers, agents, and employees as it may deem necessary and proper and fix their compensation." Section 4526*c*–1, *Carroll's Kentucky Statutes*, 1922, provides that county boards of education shall have authority to appoint, with the approval of the county superintendent, one or more attendance officers and fix their compensation. (Compare *ibid.*, sec. 4399*a*.) This section also appears in *School Laws*, 1922, Section 71. The *School Laws* also contain a section giving boards of trustees in graded common districts authority to appoint "not less than one attendance officer who shall hold an attendance officer's certificate issued by the State Board of Education." The reference in the *School Laws* is to Section 4479, *Kentucky Statutes*, but it could not be located under that section, and careful search of other sections failed to reveal it. Section 4399*a*–12, *Carroll's Kentucky Statutes*, provides also that high-school districts may employ "special truant officers."

[9] *Revised Statutes*, 1916, chap. 16, sec. 68; *Acts and Resolves*, 79th Legislature, 1919, p. 123, sec. 5.

[10] *General Laws*, 1921, chap. 77, sec. 12.

[11] *General Statutes*, 1923, sec. 3087.

Montana,[1] Nebraska,[2] Nevada,[3] New Hampshire,[4] New Jersey,[5] New York,[6] North Dakota,[7] Ohio,[8] Pennsylvania,[9] Rhode Island,[10] South Dakota,[11] Tennessee,[12] Virginia,[13] Washington,[14] and West Virginia.[15]

In fourteen states the methods of appointing compulsory-education officers and of fixing their compensation vary, and it has been thought best to treat these states separately. In some cases the educational authorities have full control except in certain classes of cities or districts.

While expressly providing for the appointment of attendance officers in all districts, Arkansas apparently makes no provision for compensating them except that "in cases of conviction [they] shall be entitled to such fees as are provided by law."[16] The board of directors in each district is authorized to select or appoint one or more attendance officers,[17] and the circuit judges are required specially to instruct grand juries with reference to the compulsory school attendance law.[18] The State Board of Charities and Corrections is also authorized to assist in the enforcement of compulsory education.[19]

[1] *Revised Code*, 1921, Part III, chap. 90, sec. 1137.

[2] *Compiled Statutes*, 1922, sec. 6509; *School Laws*, 1925, art. 20.

[3] *Statutes*, 1920–1921, chap. 157, secs. 206–7.

[4] *State Laws Relating to Public Schools*, 1925, pp. 10, 28, and 46.

[5] *Cumulative Supplement to Compiled Statutes*, 1924, 185–165*r*, *w*, *x*, *y*, *z*.

[6] *Birdseye's Annotated Consolidated Laws*, Vol. II, 1917 (as amended to 1918), sec. 631, pp. 2243–44.

[7] North Dakota gives boards of education in cities or districts of more than 5,000 population authority to employ a truant officer. *General School Laws*, 1919, sec. 1345.

[8] *Page's Annotated General Code*, 1926, sec. 7769, 7769–1.

[9] *School Laws*, 1925, secs. 1432 and 1436.

[10] *General Laws*, Revision 1923, chap. 76 (1035), 2.

[11] *Revised Code*, 1919, sec. 7644; *17th Session Laws*, chap. 199, sec. 2.

[12] *Baldwin's Shannon's Cumulative Code Supplement*, 1920, sec. 1416*a*35; *Shannon's Annotated Code*, 1917, Vol. I, secs. 1461*a*16 and 1461*a*17.

[13] *Code*, Annotated, 1924, sec. 722*h*.

[14] *Remington's Compiled Statutes*, 1922, sec. 5075.

[15] *Barnes' Code*, Annotated, 1923, sec. 123.

[16] *School Laws*, 1920, sec. 10.

[17] *Ibid.* [18] *Ibid.*, sec. 14. [19] *Acts*, 1921, Act 306.

Connecticut provides that "each city and town may make regulations concerning habitual truants from school."[1] "Every town, and the mayor and aldermen of every city, having such a regulation shall annually appoint three or more persons, who alone shall be authorized to prosecute violations thereof."[2] Officers other than policemen in cities shall receive for arresting truants such fees as may be allowed by the selectmen,[3] not exceeding the usual fees allowed by law for making arrests. The fee allowed by law for sheriffs and constables is fifty cents if unaided, "for necessary assistants a reasonable sum."[4]

Idaho provides that probation officers shall enforce the compulsory-education law,[5] and the county superintendent[6] is required to report violations to such officers. Their compensation is determined by the probate court in such amount as this court "deems just and proper." The probation officers are appointed by the probate court.[7]

In Indiana appointment is made by the county board of education on recommendation of the county superintendent. In districts with more than 2,000 children of school age, the city superintendent recommends, and the board of education or board of trustees appoints. A city may employ and fix the compensation of more than one attendance officer for each 2,000 to 10,000 children of school age but must pay the cost of additional personnel and additional compensation from its own funds.[8] Thus, cities with 2,000 or more children are free to employ and fix the salary schedule of their compulsory-education officers. In other districts, unless the districts pay the additional cost, not less than three dollars nor more than five dollars a day for each day of actual service may be paid attendance officers in addition to the necessary traveling expenses.[9]

Iowa gives the board of education of every school corporation authority to "appoint a truancy officer," who, in the case of school cor-

[1] *General Statutes*, Revision 1918, chap. 44, sec. 843.

[2] *Ibid.*, sec. 844; see sec. 845 for duties of all officers.

[3] *Ibid.*, sec. 847.

[4] *Ibid.*, chap. 119, sec. 252.

[5] *Compiled Statutes*, 1919, Vol. I, art. 17, sec. 997.

[6] *Ibid.*, sec. 996.

[7] *Ibid.*, art. 20, sec. 1021.

[8] *Burn's Annotated Statutes*, 1925, Vol. II, sec. 6448.

[9] *Ibid.*, sec. 6449.

porations having a population of 20,000 (for which class of school districts appointment seems to be mandatory), may be the school nurse. Such persons shall be "paid a reasonable compensation" by the appointing board, but, "where a police officer[1] of a city under 20,000 is employed, he shall be paid not to exceed five dollars per month" for his services.

In Baltimore, Maryland, the board of school commissioners appoints and removes at pleasure one chief attendance officer and not more than eighteen assistant attendance officers. Compensation is fixed and paid by the mayor and city council of Baltimore.[2] In other districts in the state the county board of education appoints and removes with the approval of the county[3] and state[4] superintendents. Compensation, which must not be less than $1,200 annually,[5] is fixed by the county board of education, with the approval of the state superintendent if above the minimum. The state pays $1,200 of the annual salary of one attendance officer in each county. The county board of education must provide for the additional personnel, if any, from the county fund.[6]

County truant officers in Michigan[7] are appointed by the county commissioner of schools. Compensation for such appointees is fixed by law at three dollars a day for actual service and actual expenses. Cities having an organized police force shall detail, at the request of the board of education, one or more members of this force to act as truant officers, but the board of education in such cities is at liberty to appoint any citizen as truant officer and to fix the compensation. When members of the police force act as truant officers, their salary is fixed and paid in the same manner as that of other members of the police force. In graded districts the board of education fixes the salary of its appointees.

In Missouri,[8] districts with 200 or more children of school age

[1] *Code*, 1924, sec. 4419. Districts including a city or town may appoint a member of the police force or a marshal; other districts may appoint "a constable or other suitable person."

[2] *Annotated Code of Public Laws*, 1924, art. 77, sec. 224.

[3] *Ibid.*

[4] *Ibid.*, sec. 145.

[5] *Ibid.*

[6] *Ibid.*

[7] *Compiled Laws*, 1915 (5979), sec. 2.

[8] *Revised Statutes*, 1919, Vol. III, chap. 102, art. 9, sec. 11325.

may appoint one or more attendance officers and pay them from the school fund of the district. In other districts the county superintendent selects the attendance officer, and, on the superintendent's recommendation, the county court is authorized to fix the compensation at not more than four dollars a day for each day actually engaged in the discharge of duty and actual expenses. If the county superintendent acts as attendance officer, he receives no additional pay.

In North Carolina[1] county boards of education and governing bodies appoint district attendance officers, who are responsible to the chief attendance officer of the county in cases of prosecution. How their compensation is determined is not clear. In certain cities attendance officers are not responsible to the chief attendance officer of the county, who is county superintendent of public welfare and chief attendance officer, ex officio.

Boards of education in cities and incorporated towns in Oklahoma[2] "may appoint and fix, and provide for the payment of salary" of one or more "truancy officers." Truancy officers for districts outside of incorporated cities and towns are appointed by the county superintendent of schools and are paid four dollars a day "for each and every day of actual and necessary service." The county probation officer may also be the county truant officer, but with no additional compensation.

In cities of the first class in Oregon attendance supervisors are appointed by the board of education, which is authorized to fix the salaries of its appointees.[3] The county superintendent of schools makes the appointments in districts of the second and third classes, while the compensation for attendance supervisors in these districts is fixed by law at three dollars a day for actual service and traveling expenses.[4] A district of the second class may also petition the district boundary board to grant permission to appoint such an officer at three dollars a day.[5]

In South Carolina[6] the board of trustees of a district or the school

[1] *Consolidated Statutes*, 1920, Vol. II, sec. 5760.

[2] *Bunn's Compiled Laws*, Annotated, 1921, sec. 10544.

[3] *School Laws*, 1925, sec. 441*a*.

[4] *Ibid.*, sec. 441*b*.

[5] *Ibid.*, sec. 441*c*.

[6] *Code of Laws*, 1922, Vol. III (2744), sec. 6.

commissioners of any district may nominate an attendance officer to the county board of education and in the larger towns to the superintendent or supervisor of public schools. The county board of education may employ, with the written approval of the county superintendent and a majority of the county legislative delegation, an attendance officer for all districts and prorate the expense among all districts in proportion to the funds available for the support of the respective districts.

Utah apparently has a mixed system of enforcing school-attendance laws. Section 3 of chapter 92, *Session Laws*, 1919, pertaining to part-time schools, provides that chairmen of boards of school trustees and presidents of boards of education shall make inquiry of all violations and report them to the city or county attorney, who is required to prosecute such violations. In 1921 this section was amended to read that the report of violations shall be made by school officers to the juvenile court, whose officers must investigate and take action.[1] Section 7 of chapter 92 provides that "truant officers appointed by the school district shall be charged with the responsibility" of enforcing part-time attendance laws, but no truant officer was at that time authorized. This section (sec. 7, chap. 92) was not amended in 1921.[2] Section 4648, *Compiled Laws*, 1917,[3] relates to parental schools in county districts of the first class and permits boards of education in such districts to "appoint and fix the compensation of a truant officer whose duty it shall be to make complaints and arrests in cases contemplated by this act." Boards of education in city districts are given similar authority in the case of parental or "special schools."[4] Probation officers are paid "not over $4.00 per day for each day of actual service."[5] It thus appears from the statutes that, except in the three instances noted, Utah does not provide special means for enforcing compulsory education.

In Wisconsin, except in cities of the fourth class, boards of education are not restricted by law in appointing[6] "truant officers" or in

[1] *Session Laws*, 1921, chap. 107.

[2] *Ibid.*

[3] See Title of Act of 1921, chap. 107, for sections repealed.

[4] *Session Laws*, 1921, chap. 105, sec. 4729.

[5] *Compiled Laws*, 1917, sec. 1826.

[6] *Statutes*, 1925, 40.74 (1) (*a*).

fixing their compensation.[1] In cities of the fourth class the chief of police and police officers may be truancy officers[2] but must serve without additional compensation.[3] When sheriffs perform this duty, they receive the regular fees allowed by law unless they are on a salary basis, in which case they are entitled to expenses only.

In three states no provision is made for special officers. Louisiana provides that delinquent parents shall be fined in cases of conviction for violation;[4] cases of non-attendance "not due to fault of parents" are dealt with by the juvenile court.[5] The latter jurisdiction, expressed or implied, is usual in most juvenile-court codes.[6] In Mississippi the county superintendent is required to enforce the law.[7] In New Mexico the presiding judge of the district is required to give the substance of the compulsory-attendance act as a special charge to grand juries.[8]

Only eleven states[9] prescribe any qualifications for persons charged with the administration of compulsory-education laws. Of these states, only five set minimum educational standards. Illinois[10] provides that the county superintendent may appoint a county truant officer, who is also assistant county superintendent and must possess qualifications as such. One of the duties of the county superintendent is as follows: "To employ, with the approval of the county board of education, such assistant or assistants as he needs for the full discharge of his duties. Such assistants shall be persons of good attainments, versed in the principles and methods of education, familiar with public school work and competent to visit schools."[11] In-

[1] *Ibid.* (5) (*a*). [2] *Ibid.* (1) (*a*).

[3] *Ibid.* (5) (*a*).

[4] *An Annotated Supplement to Marrs' Revision*, 1915 [1924], Act 117 of 1922, sec. 4.

[5] *Ibid.*, sec. 5.

[6] H. Hart, *Juvenile Court Laws in the United States*, Part I. New York: Russell Sage Foundation, 1917.

[7] *School Laws*, 1924, chap. 19, sec. 164.

[8] *School Code*, 1925, chap. xii, sec. 1212.

[9] Where the state designates the sheriff, constable, or other peace officer or a member or members of the board of education, it is not considered that a qualification has been set up.

[10] *Revised Statutes*, 1923, chap. 122, par. 398, p. 3145.

[11] *Ibid.*, par. 16, p. 3054.

diana requires "not less than elementary education and qualified by standards set up by the State Department of Education."[1]

Counting all qualifications previously mentioned, Kentucky requires ability to read and write with ease, residence in the district, certificate of qualification, and an attendance officer's certificate issued by the state department of education. It is probably correct to conclude that these qualifications apply only in certain cases and are not general qualifications.

In Tennessee[2] compulsory-education officers "must be persons of good moral character and must be able to read and write with ease" and must be residents of the district in which they are employed. They must first present the appointing board with a certificate from the county or city superintendent, as the case may be, showing that they meet the educational qualification.[3]

Oregon[4] stands head and shoulders above all states in the matter of setting up qualifications for compulsory-education officers. Oregon is the first state to recognize by statutory enactment the fact that the whole question is much more than merely arresting parents or children. An attendance supervisor must be or must have been a holder of a valid certificate to teach in the public schools of Oregon; must submit evidence of a knowledge of common social problems which relate to school attendance and of the Oregon laws relating to compulsory education, child labor, and registration of minors; and must have ability to keep the records of the office and to make statistical "records" (reports?). In other words, an attendance supervisor is a specially trained teacher who can do social case work. Present truant officers have a year in which to qualify.

California merely requires that its "attendance supervisors" be certificated by the county board of education.[5]

Idaho[6] authorizes the probate court of each county "to appoint one or more discreet persons" to act under the direction of the pro-

[1] *Burn's Annotated Statutes*, 1925, Vol. II, sec. 6449.

[2] *Shannon's Annotated Code*, 1917, Vol. I, sec. 1466a17.

[3] *Baldwin's Shannon's Cumulative Code Supplement*, 1920, sec. 1461a35.

[4] *School Laws*, 1925, sec. 441d.

[5] *General Laws*, 1923, Part 2, Act 7487, sec. 4.

[6] *Compiled Statutes*, 1919, Vol. I, art. 20, sec. 1021.

bate court. An independent district with three or more teachers may request the court "to appoint a probation officer for such district living in the district."[1] Michigan authorizes the county commissioner of schools to "select persons of good moral character to act as truant officers," but boards of education in cities are not hampered by such restrictions.[2] The statutes in Missouri are not clear on this point in the case of cities or towns, but the county superintendent of schools can select for county attendance officers only persons of "good moral character."[3] In North Carolina the superintendent of public welfare, who is chief attendance officer, must be acceptable to the State Board of Charities.[4] Utah requires persons of "good moral character" for probation officers.[5]

While it is impossible to classify the states on the basis of the titles used to designate persons administering and supervising compulsory education because in many states more than one title appears in the statutes, "truant officer" is by far the most frequently used title. It is doubtful whether the change from "truant officer" in the few instances noted really represents an improvement. For example, Texas[6] does not allow her "attendance officers" to be paid more than two dollars a day; Oklahoma[7] pays her "truancy or attendance officers" four dollars a day; the compensation for "attendance officers" in Kansas[8] is two dollars a day; while in Washington "any attendance officer may be a sheriff, a constable, a city marshal or a regularly appointed policeman."[9] Kentucky orders truant officers called "attendance supervisors" in certain cities and districts.[10]

While no record was made of the states permitting the arrest of "truants," this action is expressly authorized in many states, proba-

[1] *Ibid.*

[2] *Compiled Laws*, 1915 (5979), sec. 2.

[3] *Revised Statutes*, 1919, Vol. III, chap. 102, art. 9, sec. 11325.

[4] *Consolidated Statutes*, 1920, Vol. II, sec. 5017.

[5] *Compiled Laws*, 1917, sec. 1826.

[6] S. M. N. Marrs, *op. cit.*, p. 8.

[7] Outside of incorporated cities and towns, *Bunn's Compiled Laws*, Annotated, 1921, sec. 10544.

[8] *Revised Statutes*, Annotated, 1923, art. 48:72–4804.

[9] *Remington's Compiled Statutes*, 1922, sec. 5075.

[10] *Carroll's Kentucky Statutes*, 1922, sec. 2778c–6.

bly in the majority. Connecticut,[1] for example, authorizes "the police in any city, and bailiffs, constables, sheriffs and deputy sheriffs . . . . to arrest all boys . . . . who habitually wander about the streets." Many of the states specify the arrest of boys only, but several authorize the "arrest without warrant" of any youth or child.

If we add to the twenty-six states in which compulsory education is in the hands of educational authorities those states in which such governing bodies in the larger cities and towns have full control (Indiana, Iowa, Michigan, North Carolina, Oklahoma, Oregon, and Wisconsin), it is found that in thirty-three states this matter is entirely in the hands of educational authorities. In spite of this, it is true that no other phase of education is more generally intrusted to an untrained and often uneducated personnel. In one section of the United States it was found that 36 per cent of the compulsory-education officers were fifty-one years of age or older; 35 per cent had been engaged in this type of work for ten or more years; and not one had spent a day during that time in professional improvement although 60 per cent had only an elementary education or less, while the last previous occupations of the forty-three persons replying to the question included police officer, real-estate dealer, factory worker, meat-cutter, expressman, glass-blower, printer, electrician, and cotton-mill worker.[2] Only six, or 14 per cent, could by any means be classified as professionally trained; these six included three superannuated teachers and a music teacher with two years of high-school work and two years in a conservatory of music.

The reason for this backwardness, even since schools have "dotted the hills like diamonds," is not hard to discover. It is not wholly a problem of administration, such as the small district,[3] financial difficulties, and crowded schools. It is far more sinister and personal. The stumbling-block to progress and the solution are both centered in the educational leaders. It is true, to some extent, that compulsory education has thrown many additional burdens on the school,

[1] *General Statutes*, Revision 1918, chap. 44, sec. 845.

[2] From an unpublished study by the writer. The section referred to is composed of eastern states, but the same situation doubtless exists in all sections.

[3] Whittier Lorenz Hanson, *The Costs of Compulsory Attendance Service in the State of New York and Some Factors Affecting the Cost.* Teachers College Contributions to Education, No. 158. New York: Teachers College, Columbia University, 1924.

but this should be urged neither in extenuation of indifference nor as an excuse for lethargy. Administrators should realize that compulsory, or universal, education is not wholly or even mainly concerned with "truancy" nor primarily with non-attendance. These are simply manifestations of a process which may have been going on for a longer or shorter period, unnoticed or ignored until the final eruption inconveniences the school. The roots of the trouble may lie in the school itself, in the home, in the community, or even in the peculiar personality of the child. The maladjustment may be not only discernible but remediable if correctly treated early enough. This, however, is scarcely a task for a horse doctor or a blacksmith.

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Educational Writings

REVIEWS AND BOOK NOTES

A significant contribution to the literature on supervision.—Supervision of a sort has long been provided, but, in spite of the fact that it is one of the major problems in the educational field, only recently has attention been seriously directed toward scientific study and experimentation with respect to it. Of significance, therefore, is the appearance of a book[1] which brings together statements of the problems involved and presents a thoroughgoing discussion of principles and practices based on the best experimental and pragmatic evidence available. Since both authors have been actively engaged in the field, their combined efforts represent a distinct contribution.

After a brief statement of the rise of the problems of supervision, the field is laid out in a series of statements as to "what supervisors do." As a point of approach to these problems the authors "stand for the idea that the chief function of supervision is to further the pupil's learning and growth" (p. 21).

Chapter ii, "Administrative Organization," deals for the most part with the problems incident to the relations of the principal, the special supervisors, and the superintendent. Extensive quotations from writers are given and discussions appended. The authors themselves contend for a clear definition of the terms "administration" and "supervision" as a basis for closer co-operation between workers in the two fields. They accept with reservations the growing emphasis on the autonomy of the principal as both an administrator and a supervisor but maintain that the supervisor is a technical expert from whom both superintendent and principal need to take counsel. They say that "supervision should be a co-operative undertaking of teachers, principals, and supervisors" and that "supervision should be thoroughly democratic in spirit" (p. 67).

"The Planning of Supervision" receives attention in chapter iv. Various plans are discussed, including those applicable to county (rural) and city situations. Especial emphasis is laid on the necessity of well-thought-out procedures "selected in terms of the actual needs of the schools" and accompanied by "a series of checks, tests, or criteria by which the success of the plan is measured" (p. 106). A summary sets forth the reasons for supervision and the steps in the process.

An important phase of supervision is "Studying the Work of the Teacher"

[1] A. S. Barr and William H. Burton, *The Supervision of Instruction.* New York: D. Appleton & Co., 1926. Pp. xiv+626.

(chap. v). Attention is directed to the necessity of securing factual material as a basis for effective diagnoses of teacher difficulties and of using this material as a basis for an impersonal presentation of points to be considered in improving instruction. One major aim is to stimulate "self-study, self-analysis, self-evaluation, and self-improvement," and for this purpose the check list useful to the supervisor is equally useful to the teacher. Samples of check lists for the study of the teacher as well as the pupil at work are presented.

Chapter vi sets forth pertinent suggestions with respect to the ways in which teaching can be improved through class visitation and teacher-supervisor conferences. In the judgment of the reviewer, this chapter is one of the most important in the book and should prove to be of great value, possibly painfully so, to the inspectorial, inquisitorial type of supervisor, now, it is to be hoped, slowly disappearing. The principal, too, will find here many ideas of worth.

The relation of the supervisor to curriculum construction is dealt with in chapter vii. Quotations are freely made from numerous writers in the field, and standards are set for judging courses of study. Closely related is chapter viii, concerned with "Selection of Materials."

Chapter ix is devoted to the use of educational and mental tests and measurements. Their uses in surveying and directing the learning process as well as in applying administrative techniques are pointed out.

Chapter x constitutes a second high point in the book. It deals at length with "Improvement of Teaching through Research and Experimentation." The opinionated, traditionalized, and "conservative" school official will be but little disturbed by the discussion. It will mean but little to him. The forward-looking supervisor or principal, however, will be stimulated. The position of the authors is that "the point of view of modern education is one of truth-seeking and truth-finding, an attitude which seeks solutions in the scientific study of educational problems" (p. 347). The chapter is well supplied with illustrative materials and pointed discussions.

Chapter xi, "General Devices," sets forth ways in which supervisory officers may stimulate teachers to grow in power and efficiency through teachers' meetings, institutes, conventions, etc. Here, again, valuable suggestions are to be found. The authors' position is that "the supervisor should exert every effort to bring all teachers to a realization of the need for training and the possibility of continuous growth" (p. 409).

Chapter xii, "Evaluating the Efficiency of Teachers," is a frank discussion of both sides of a widely debated problem. It is admitted that experience thus far has failed to fulfil the early promises of the rating idea, but it is contended that this does not of necessity prove it unworkable. Unfair uses are condemned, and emphasis is laid on the fact that the "principal purpose should be to stimulate the teacher to an intelligent self-criticism of her work. The fact that there are often abuses in the administrative application of rating is a criticism of the rater and not of the rating scheme" (p. 486).

Chapters xiii–xv are concerned with significant factors in the development

of the art of supervision: "Evaluating the Efficiency of Supervisors," "Training and Personality," and "The Scientific Study of Supervision." Excellent standards for evaluating supervision and suggestions for future experimentation and research are presented.

The book is well adapted to class use as a text since it is organized about clearly stated problems and is well supplied with references. It leaves the reader with the conviction that the authors have no pet doctrines to promote but are concerned with an impartial presentation of facts bearing on a most important phase of education.

R. E. WAGER

EMORY UNIVERSITY

A textbook on mental development.—Instructors in psychology who feel the need of a general survey of mental growth from beginning to end will be interested in Professor Hollingworth's treatment[1] of the subject. The text will be most useful in classes of college students sufficiently mature in intellectual training and scientific interests to go somewhat beyond the immediate pedagogical implications of the subject.

The author follows the cross-section method of studying child growth, organizing his material in chapters corresponding to the following developmental stages:

1. The germ plasm—The career and permutations of germinal elements, representing biological heredity, and the contribution of determinants by near and remote ancestry.

2. The foetal period—The life of the embryo, from the moment of conception or ovum fertilization, to the time of birth.

3. The infant—The "neonate" or newborn individual, in its first few weeks or months of life.

4. The babyhood age—The first three years of life, up to the point which, if the individual does not intellectually pass, he remains an "idiot."

5. Questioning age—Centering at about the time of customary school entrance, at the sixth year, the point which, if the individual does not intellectually pass, he is characterized as an "imbecile."

6. "Big Injun" age—Culminating at about the eleventh year, the point which, if the individual does not intellectually pass, he is described as a "moron."

7. "The Awkward Age," adolescence—The typical high-school age, terminating at or around the eighteenth year, with wide variations.

8. Maturity—The long stretch of economic, political, and domestic responsibility, running up to seventy years or thereabouts.

9. Senescence—The period of decline, and in some cases of involution or senile decay.

10. Post-mortem age—That period, brief or prolonged, in which the personal influence of the individual persists and the institutions he has had a part in establishing remain effective [pp. 45–46].

[1] H. L. Hollingworth, *Mental Growth and Decline.* New York: D. Appleton & Co., 1927. Pp. xii+396.

The treatment given "The Post-Mortem Age" is somewhat uncommon in the literature of mental growth, but it presents some significant considerations in the field of social psychology.

In addition to the chapters which deal with the ten growth stages, there are several chapters which bear on the general nature of development. Chapters ii and iii treat all too briefly and uncritically certain topics which are fundamental to the study of mental development. On page 16 one reads:

> Radiographs of the wrist enable measurements to be made of the absolute or relative areas of ossification. Such measures have in recent years been much employed as signs of "anatomical age." Anatomical age, as thus measured, may be compared with physiological age, mental age, educational age, social age, and other lines of development. In general, early maturity in one field goes with advanced development in others.

Certainly, a critical study of the experimental literature on this topic would not justify the statement made in the last sentence. The treatment of growth curves in physical and sensori-motor traits could be expanded to marked advantage. There is much need of a critical interpretation of the data presented under the title, "General Features of Development," which goes beyond that given. The final chapter summarizes twenty-three "General Developmental Laws." In view of the variation in the amount of scientific evidence underlying these "laws," one might desire a treatment of them more extended than that given in the single chapter.

For use as a general text in college classes on mental development, the reviewer considers this the best book now available. The range of topics covered commends the book for use in a survey course in this field. If a body of supplementary material is provided, the book will be useful as a basic outline for advanced classes.

G. T. BUSWELL

What teachers expect pupils to know at the end of a course in history.—If the character of the questions asked by history teachers in final examinations is an indication of what they expect their pupils to know at the end of the course, a recent study[1] throws much light on the historical information which teachers deem important. The data for the study were collected from 1,125 history teachers in grades above the sixth. A grand total of 56,504 questions were contributed by the teachers who answered the request for copies of their final examination questions in history. These questions were distributed as follows: elementary American history, 24,028 questions; secondary American history, 11,442 questions; ancient history, 7,644 questions; medieval and modern history, 13,390 questions.

In the study of the questions two classifications were used—one by topics

[1] *Are We Making Good at Teaching History?* Prepared under the direction of W. J. Osburn. Bloomington, Illinois: Public School Publishing Co., 1926. Pp. 130.

and one according to type of question. The classification by topics proved to be of little value. A reason for this is found in the kind of topics selected. Many of them would include almost all the history of the United States. The topic "Expansion" is a case in point. On the other hand, some topics are very limited in scope, while others are so general that they have no meaning—"Recent History," for example. Because of this uneven and faulty classification of questions, the data assembled by topics are of very little value.

When classified on the basis of type of question, the data revealed the following types: compare, define, describe, discuss, explain, give, how, identify, draw map, name, outline, state, who, what, when, where, why, write, summarize, prove, imagine, and trace. The general conclusions answer in the negative the question stated in the title of the monograph. History in the secondary school is too much like that in the elementary school. There is little or no evidence in the questions that the principle of progress within the subject is applied. Forty-five per cent of the time in both the elementary and the secondary schools is given to the memorization of answers to questions in the textbook. Mr. Osburn feels that "the crying need of all history-teaching is to concentrate on something and teach it well." His final sentence is: "There is still room for a revolution in the teaching of history and there is much ground for hope that this revolution is not far off."

R. M. TRYON

Training character.—The great interest which has been shown recently in character-training will insure many readers for a new book[1] in this field. The book is intended particularly for use in Sunday-school classes, but the author states that it can be used equally well in school or in the home.

Seventeen chapters are included, each intended to teach a habit. The habits to be taught are "Being Upright," "Being a Good Sport," "Being Plucky," "Courtesy," "Loyalty," and others of like nature. A detailed procedure is described. In the chapter on "Being Plucky," for example, there are six distinct parts. The first is a brief abstract description of pluck. In the second part four situations are described which are characteristic of the situations children are likely to meet, such as seeing a big boy beating a smaller one. These situations are to serve as a basis of class discussions. In the next section the idea of pluck is defined by giving synonyms, contrasting abstract synonyms with concrete actions, and giving antonyms. The fourth section contains references to several Bible stories which illustrate pluck and two short stories illustrating the same quality. The fifth part of the chapter is called, "Home Activities," and contains proverbs to be paraphrased and a poem to be memorized. The last part of the chapter contains the central feature of the author's method and is entitled, "Visualization—Habit Model." It provides for the construction of a model, in this case a manikin representing a soldier and actuated by a spring so

[1] Henry Park Schauffler, *Adventures in Habit-Craft:* Character in the Making. New York: Macmillan Co., 1926. Pp. 164. $2.00.

that when it is knocked down it will return to an upright position. It is to be decorated with the legend, "A Plucky Will Bobs Up Undefeated by Anything." This model is to be exhibited to the class, and, as he demonstrates the model, the instructor is to tell the story of Paul, the Apostle, as an example of pluck. He is also to give a lecture. Teachers who lack ability in this direction will be glad to have the lecture outline which is presented. The other chapters follow the same scheme in detail.

The author has a perfectly sound theory of character-training. He names three steps which pupils must take: (1) learning to value, (2) growing to desire, and (3) trying to create and instal in their own lives (p. 12). In working out a method based on this theory, he shoots wide of the mark. The plan is excessively formalized and verbalized. Definitions, proverbs, poems, and stories of virtuous action have a proper place in character-training and may help to create a desire for a trait, but in this book these purely verbal activities make up the larger part of the work. The author's major error, however, is in his misunderstanding of the word "construct," a word which he assumes to mean merely manual activity. A toy soldier is not a habit. Traits of character are not to be constructed by building cardboard models, however interesting these models may be. Constructing a trait can only mean practice in actions conforming to the trait to be learned, and this practice the author fails to provide. He has given us another book to add to the long list of those which attempt to teach the virtues by requiring the child to do everything but practice them.

R. C. SCARF

A general treatise on physical and mental health.—A volume[1] on school hygiene of extraordinary scope has been prepared by James Kerr, an English physician. The author has included a considerably wider range of topics than is common in American texts on the same subject. The book contains forty-three chapters. Although the chapters are not grouped into parts or divisions, a grouping by the reviewer shows the following distribution of material: physical development and growth, five chapters; hygiene, thirteen chapters; school equipment, six chapters; mental development, three chapters; sensori-motor functions, nine chapters; special defects, three chapters; school health programs, two chapters; sex education, one chapter; and the ever-present statistical methods, one chapter. The treatment in each chapter is simple and concise. Quantitative data have been drawn upon in great abundance, as indicated by the 115 tables and 163 figures. The author's familiarity with American as well as British literature is indicated in the content of the various chapters.

A more concrete indication of the author's method of treatment may be given by describing the content of the chapters on "Mental Development," "Intelligence," and "Subnormal Intelligence," to which 136 pages are devoted. In the first of these chapters there is a somewhat detailed account of the nervous

[1] James Kerr, *The Fundamentals of School Health.* New York: Macmillan Co., 1927. Pp. xvi+860.

system and its functioning, the periods of nervous development, conditioned reflexes and habits, intellectual actions, suggestion, and disturbances in mentality. The chapter on "Intelligence" devotes twenty pages to descriptions and illustrations of several intelligence tests; a discussion of the distribution of intelligence and a treatment of psychopathic and exceptional children follow. The chapter on "Subnormal Intelligence" treats several varieties of mental abnormality of both the amentia and the dementia types. The treatment in these three chapters is appropriate for the non-specialist in the field who needs general information and orientation.

The chapter on "Sex Education" is brief (three pages), but it contains the following sensible comment on a topic which is very much in need of sober treatment in America.

> There is an enormous amount of foolish sentimentality about sexual things. They are combined in discussions with talk about their beauty and sacredness, which is exactly the beauty in any other organic function combined with instinct, and rings false to the child. . . . .
>
> Information of the needed kind cannot be taught in school classes. Either it would not be understood, or it would do harm or come too late. The only reasonable way is to make the information accessible and evident to all, so common that none can miss it. A plain scientific statement of facts, uncombined with sentimental or emotional context, would be gradually built into the child's subconsciousness for use when wanted. The immature would pass it unnoticed, yet it would sink in subconsciously and the mature would have the knowledge ready for service. This can best be done, apart from individuals, by having the information scattered in textbooks, dictionaries, cyclopaedias and all kinds of reference books. It should never be suppressed anywhere. That is the only solution the writer has to suggest [pp. 377–78].

Entirely apart from its specific content, the book is an illustration of a type of text which is too uncommon in American schools—it is not abbreviated into the traditional three hundred to five hundred pages. The author has taken the full amount of space necessary for a substantial treatment of his subject; he repeatedly cites experimental evidence, presents full tables of quantitative data, and describes in detail crucial experiments where occasion demands. The book has evidently been written in terms of the subject to be treated rather than in terms of the sales market. It should find a place on the shelves of principals and superintendents. It may find a place as a textbook for classes in school hygiene which are willing to undertake the study of a substantial body of material.

G. T. BUSWELL

A state survey.—The past few years have seen the release of a tremendous amount of material through the medium of the school survey. States, counties, and cities have had their educational procedures scrutinized and reported. The most recent state contribution emanates from Utah.[1]

[1] *Survey of Education in Utah.* Bureau of Education Bulletin No. 18, 1926. Pp. xiv+510.

The survey was of the comprehensive type, the report including analyses of elementary, secondary, higher, and adult education. The topics and the methods of treatment are typical of survey reports in general. The discussions center about the problems of the state school system, attendance, course of study, results of standardized tests, extra-school agencies, local supervision, teaching staff, buildings, and finance. The recommendations are, in the main, definite and specific. Occasionally alternative recommendations are presented by way of mollification of anticipated opposition.

In view of the vast amount of present-day educational literature, it is certain that few will read the complete report; it is equally certain that practically everyone engaged in educational work will be interested in certain parts of it. The specialist in school finance, for instance, will be critically alert to the detailed financial plans outlined, but he will probably give little heed to the rest of the report save as he may glance at the discussions of state control and of the building program. Similarly, specialists in curriculums, tests, supervision, etc., will repair to the sections dealing with their respective fields.

Since most readers will content themselves with only a portion of the report, it seems that a summary chapter, co-ordinating the general findings and recommendations, would have been of material help in relating detailed findings to the general educational situation in the state.

This survey report constitutes an appreciable addition to the accessible comparative data in education.

J. L. BLAIR

An endeavor to measure interest in poetry.—Fifty thousand children and 1,500 teachers have participated in by far the most extensive investigation ever made with respect to children's interests in literature. The conception of the study, its program, and its results are admirably set forth in a recent book,[1] which should be in the hands of every children's librarian and of every curriculum committee of elementary-school English.

For each grade from I to IX, one hundred poems, selected from excellent courses of study by expert teachers, were printed in attractive "Poetry Books" and furnished without cost to 50,000 pupils in twelve experimental centers in sizable cities scattered over the United States. Each booklet was used over a range of five grades. A carefully planned procedure enabled each child, after "studying" five poems, to select the one of the five he liked best and the one he liked least. This procedure was repeated with five more poems, and then with five more. After fifteen poems were studied, the individual pupils selected the five of the fifteen which they liked best. After thirty poems had been studied, each pupil chose the five he liked best and the five he liked least.

With slight variations, this program was carried forward by successive in-

[1] Miriam B. Huber, Hebert B. Bruner, and Charles M. Curry, *Children's Interests in Poetry*. Chicago: Rand McNally & Co., 1927. Pp. 234.

crements of five poems until, at the end of the school year, each pupil had come in contact with many poems and had expressed, with reasons for his choice, his liking for, or disliking of, a very considerable number. In addition, each teacher at the end of the year named the five poems she considered best for her grade and the five least appropriate for her grade; she named also the five she would choose to have her pupils memorize and the five she would have her grade "study intensely."

By means of elaborate statistical devices, the proper "grade placing" of each poem is ascertained, with the somewhat astounding discovery that present practice is only 39 per cent right. The final outcome is nine lists of approximately sixty poems for Grades I–IX, each list arranged in the order of preference. An author index and a title index follow the popularity or interest index, enabling the reader to locate expeditiously the data concerning any poem.

The final ninety pages of the book set forth "Some Suggestions for Teaching Poetry," treating twenty-eight poems with embryonic lesson plans distributed about equally over the different grades. Commonly used methods are (1) finding a suitable background in the pupil's experience, (2) teacher's oral rendition, (3) pupil's silent and oral reading, (4) class discussion, (5) questions and injunctions by the teacher, (6) talks by the teacher on such poems as "Sir Galahad." All of these are conventional "plans" which seem to the reviewer to embody one serious error—they assume that poems are to be "studied" until they are completely understood. On the contrary, poems are written to be enjoyed. Indeed, some of the poems may have been reported in this study as being disliked by the pupils just because they were so studied. However, this investigation is at once the most pretentious and the most valuable of its kind ever undertaken. If literature is ever to be *studied* in the grades, we shall some day know where most wisely to try each selection. Miss Huber and her many co-workers are to be heartily thanked for an admirable piece of work.

R. L. LYMAN

Minimum essentials of United States history for Grades VII and VIII.—Many attempts have been made recently to determine the minimum essentials of United States history. Some investigators have approached the problem from the angle of textbooks; others, from the angle of the historical facts used most frequently in current magazines; and still others, from the angle of the opinions of trained historians. Until recently no one seems to have thought it worth while to consult the teachers themselves. Thanks to two versatile investigators, the teachers have had their say.[1] One hundred and sixty-three elementary-school teachers in two counties in Illinois have expressed themselves con-

[1]Walter S. Monroe and M. E. Herriott, *Objectives of United States History in Grades Seven and Eight.* Bureau of Educational Research Bulletin No. 33. University of Illinois Bulletin, Vol. XXIII, No. 3. Urbana, Illinois: University of Illinois, 1926. Pp. 68. $0.30.

cerning the twenty-five to fifty dates in United States history which they believe children completing the seventh and eighth grades should know. They have also listed the events, persons, and miscellaneous facts about which they think children should know as well as the thought questions that they think children should be able to answer.

The outstanding fact that impresses the reader of the monograph is that the teachers are far from agreement on the foregoing points. They listed a total of 269 different dates, 469 events, 417 names, 721 miscellaneous facts, and 2,500 thought questions. There was not a single date or person that was mentioned by all the teachers. Regardless of these and other somewhat hopeless features of the judgments of these experienced teachers, the investigation was worth all the painstaking work involved in making it. We now know what at least 163 teachers believe are the minimum essentials of United States history. It might be worth while for someone to ask pupils the same questions, inasmuch as there are some who believe that children ought to study only that in which they have some interest and which they believe to be important.

R. M. TRYON

Another text in community civics.—If any children in the upper elementary grades and the junior high school are now missing the opportunity to receive systematic training in citizenship, it is not because there are no textbooks in community civics for them to study. The number of textbooks in this field at the present time is fast approaching two score or more. The latest[1] is much like its forerunners. Part I is devoted to our wants and how we satisfy them; Part II, to government at work; Part III, to the ideals, liberties, and institutions of the American people; and Part IV, to the citizen at work. The so-called "welfare" topics are given full consideration in Part I, as are almost all phases of government in Part II.

The book is well supplied with teaching aids in the form of topics for investigation and discussion, suggested readings for committee reports, and additional references for advanced students and teachers. If this phase of a book can be overdone, one feels, after wading through the almost innumerable miscellaneous items, that such might be true in the case of this book.

The illustrations are sufficiently numerous. Some of them seem to adorn the text rather than make the discussion concrete. In other words, after examining the book, one feels that some of the pictures confuse rather than help. Besides the pictures, the book contains many bar graphs effectively used. There are also a few maps scattered through the text.

On the whole, the book has an attractive appearance. It contains an abundance of material for a year's work. Those interested in textbooks in its field will do well to give it careful examination.

R. M. TRYON

[1] Clyde L. King and J. Lynn Barnard, *Our Community Life*. Philadelphia: John C. Winston Co., 1926. Pp. xiv+610.

A study of the difficulties in history textbooks for Grade V.—Twenty-two states and Alaska have state-wide basal texts in fifth-grade history. For a state simply to adopt a basal text does not solve all the difficulties inherent in the situation. To find a suitable text that is not too hard for fifth-grade children seems to be a difficult task. Until recently no one seemed to know just how difficult are books in United States history which are intended for children in the fifth grade. Thanks to a recent study,[1] we now know something about the difficulty of twenty-three such books. To those who are looking for a text in the field and the grade covered by these twenty-three books, the entire list studied by Miss Ayer ought to be both interesting and valuable. Space will not permit its inclusion here. Neither will space be given to explaining the method used by Miss Ayer in compiling the list. Attention, however, will be given to what was done with each book.

In studying each book from the standpoint of children's difficulties, Miss Ayer selected paragraphs or units of thought at random with two criteria in mind: (1) that they contain thoughts, expressions, and words with which children might have difficulty and (2) that they represent all periods of history most commonly found in courses of study and textbooks. After selecting several hundred passages and analyzing them carefully, Miss Ayer found that the most common difficulties are due to difficult words and expressions essential to history comprehension in general; difficult words and expressions not essential to history comprehension; long, involved sentences; and abstract thought. To determine the reactions of children to these difficulties, tests consisting largely of paragraphs from the books were given. In their final form the tests were given to pupils in Grades V and VII. Some of the tests were of the true-false type and some of the free-expression type. The results of the tests showed that children in both the fifth and the seventh grades are unable to comprehend paragraphs intended for the fifth grade. The fifth-grade children had a mean score of 2.53 and the seventh-grade children a mean score of 3.63, the total possible score being 6. It would seem from this study that the present fifth-grade history textbooks need to be very much simplified.

R. M. TRYON

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

ARENT, EMMA. *The Relation of the State to Private Education in Norway.* Teachers College Contributions to Education, No. 235. New York: Teachers College, Columbia University, 1926. Pp. x+94. $1.50.

[1] Adelaide M. Ayer, *Some Difficulties in Elementary School History.* Teachers College Contributions to Education, No. 212. New York: Teachers College, Columbia University, 1926. Pp. vi+70. $1.50.

BAKER, HARRY J. *Characteristic Differences in Bright and Dull Pupils:* An Interpretation of Mental Differences, with Special Reference to Teaching Procedures. Bloomington, Illinois: Public School Publishing Co., 1927. Pp. viii+118.

BLACKSTONE, E. G. *Research Studies in Commercial Education.* University of Iowa Monographs in Education, First Series, No. 7. Iowa City, Iowa: University of Iowa, 1926. Pp. 160. $0.50.

BOWEN, WILBUR P. *The Conduct of Physical Activities in Elementary and High Schools.* New York: A. S. Barnes & Co., 1927. Pp. 174. $2.00.

BRACE, DAVID KINGSLEY. *Measuring Motor Ability:* A Scale of Motor Ability Tests. New York: A. S. Barnes & Co., 1927. Pp. xvi+138. $2.00.

CARROLL, ROBERT P. *An Experimental Study of Comprehension in Reading.* Teachers College Contributions to Education, No. 245. New York: Teachers College, Columbia University, 1926. Pp. vi+72. $1.50.

CRABB, ALFRED LELAND. *A Study in the Nomenclature and Mechanics Employed in Catalogue Presentations of Courses in Education.* George Peabody College for Teachers Contributions to Education, Number Twenty-One. Nashville, Tennessee: George Peabody College for Teachers, 1926. Pp. 98.

FORD, WILLARD STANLEY. *Some Administrative Problems of the High School Cafeteria.* Teachers College Contributions to Education, No. 238. New York: Teachers College, Columbia University, 1926. Pp. viii+148. $1.50.

HOLLINGWORTH, H. L. *Mental Growth and Decline.* New York: D. Appleton & Co., 1927. Pp. xii+396.

QUANCE, FRANK M. *Part-Time Types of Elementary Schools in New York City:* A Comparative Study of Pupil Achievement. Teachers College Contributions to Education, No. 249. New York: Teachers College, Columbia University, 1927. Pp. viii+50. $1.50.

REED, HOMER B. *Psychology of Elementary School Subjects.* Boston: Ginn & Co., 1927. Pp. x+482. $2.00.

RUCH, G. M., and STODDARD, GEORGE D. *Tests and Measurements in High School Instruction.* Yonkers-on-Hudson, New York: World Book Co., 1927. Pp. xx+382. $2.20.

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WOOD, THOMAS D., and ROWELL, HUGH GRANT. *Health Supervision and Medical Inspection of Schools.* Philadelphia: W. B. Saunders Co., 1927. Pp. 638. $7.50.

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BARBER, HARRY C., assisted by HELEN M. CONNELLY and ELSIE V. KARLSON. *Junior High School Mathematics*, Eighth School Year. Boston: Houghton Mifflin Co., 1927. Pp. xiv+268. $1.00.

BEEBY, DANIEL J., and BEEBY, DOROTHEA. *America's Roots in the Past.* New York: Charles E. Merrill Co., 1927. Pp. viii+424.

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COLEMAN, BESSIE BLACKSTONE. *My First Book.* New York: Silver, Burdett & Co., 1927. Pp. 30. $0.24.

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HOYT, FRANKLIN S., and PEET, HARRIET E. *The New Everyday Arithmetic:* First Book, pp. xiv+338, $0.76; Second Book, pp. viii+376, $0.80; Third Book, pp. xii+420, $0.92. Boston: Houghton Mifflin Co.

LEFFERTS, WALTER. *Neighbors North and South.* Philadelphia: J. B. Lippincott Co., 1926. Pp. viii+292.

MCGEE, R. A., and BROWN, ARTHUR G. *Instructional Units in Woodfinishing.* Milwaukee, Wisconsin: Bruce Publishing Co., 1927. Pp. 128. $1.60.

Outward Bound. Edited by Randall J. Condon. The Atlantic Readers, Book Five, Grade VIII. Boston: Little, Brown & Co., 1927. Pp. xxvi+342. $0.85.

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Teachers' Manual to Social Arithmetic, Book One, by Frank M. McMurry and C. Beverley Benson. Prepared with the collaboration of the authors by Edwin H. Reeder. New York: Macmillan Co., 1927. Pp. iv+46.

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